

MARINE REVIEW.

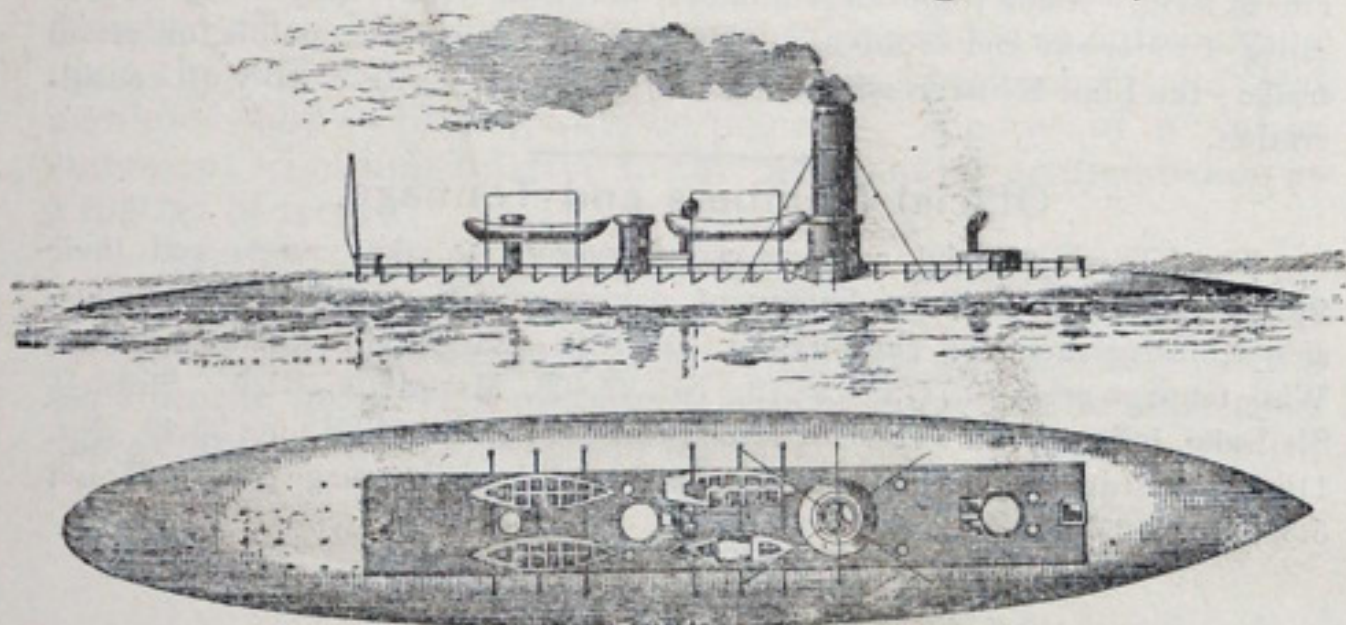
VOL. VI.

CLEVELAND, OHIO, THURSDAY, SEPTEMBER 15, 1892.

No. 11.

Building the New Navy.

Through courtesy of the Railroad and Engineering Journal, New York, two interesting sketches are shown in connection with this article. The first is the Columbia, cruiser No. 12, and for some time known as the "Pirate," on account of her commerce destroying powers. She is 412 feet on load line, 58 feet beam, nominal draft 23 feet, displacement 7,550 tons, having machinery of 23,000 horse power, which is expected to drive her 22 knots an hour. She has three screws driven by three triple engines, having cylinders 42, 59 and 92 inches by 42 inches stroke. With the central screw working alone 14 knots is



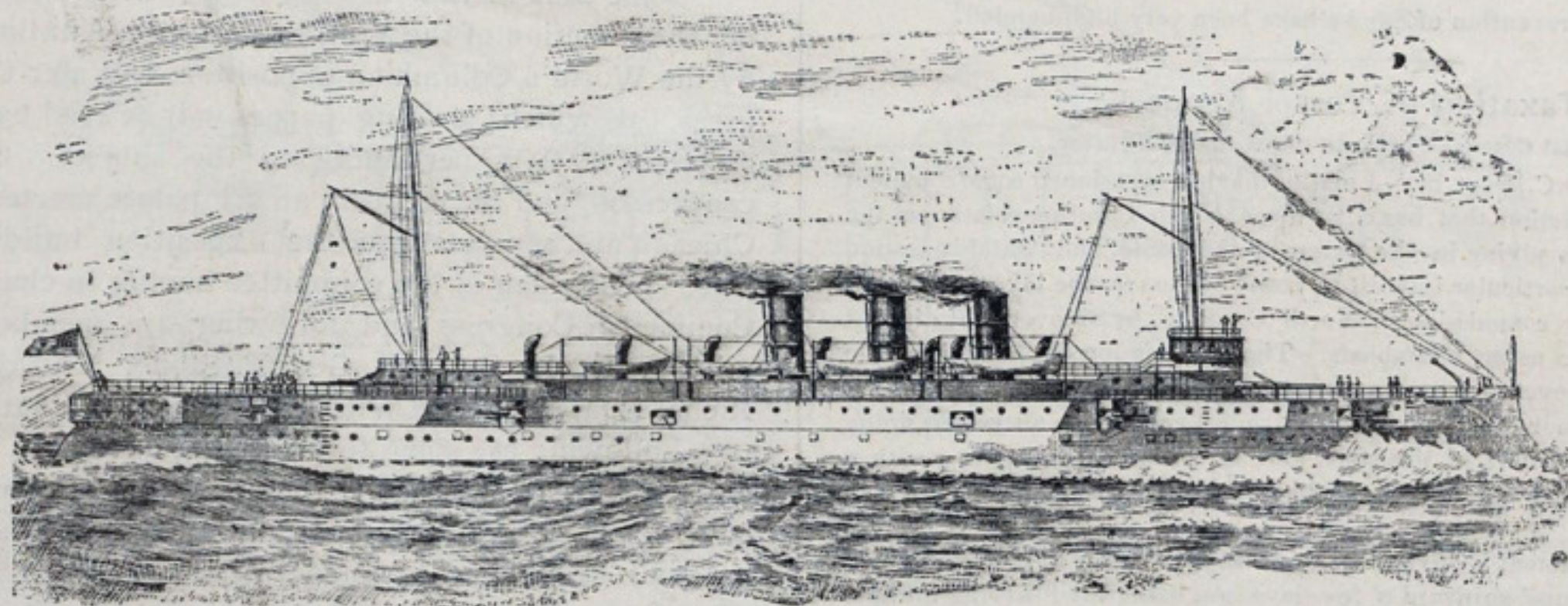
expected, with two side screws 17 knots, and with all three 20 to 22 knots is counted upon. Six of the ten boilers are double ended, 21 1/4 by 15 1/2 feet. A sister ship is also under construction at the Cramps' yard.

The other illustration shows the Ammen ram, building at the Bath Iron Works and nearly ready for launching. She is 243 feet over all, 43 feet beam and 15 feet deep; displacement 2,050 tons and horse power of engines 4,800. Seventeen knots is her estimated speed. The vessel is designed upon the longitudinal and bracket system, with an inner bottom extending from the collision bulkhead to the stern. The longitudinals and girders supporting the deck are continuous, converging to the stem casting and to the stern; the frames and beams are intercostal. The depth of the longitudinals and the vertical keel throughout their length is 24 inches; the girders supporting the armored deck are 15 inches. The vertical keel, two longitudinals, and the armored shelf on each side of the vertical keel are water-tight, forming transversely six compartments, which are divided longitudinally by water-tight frames. By this means the space between the inner and outer skin is subdivided into seventy-two compartments. The transverse and longitudinal bulkheads between the inner skin and deck armor divide this space into thirty compartments, making a total of 102 compartments in the vessel.

Lake Freight Matters.

On Monday last there were 11,996,227 bushels of corn and wheat in Chicago elevators and 1,424,000 bushels of wheat at Duluth. Duluth wheat is delayed about fifteen days, as had been expected, and has not yet begun to arrive freely, but under a heavy pressure of receipts, Chicago has begun to take capacity at the rate of nearly a million bushels per day and at an advance of a quarter of a cent a bushel over the rates that have prevailed for three weeks past. This movement has strengthened the lake freight market generally, but there is as yet no substantial assurance of high fall rates. Iron ore shippers are paying \$1.05 freely from the head of Lake Superior and shipments have relaxed but little. They are opposing an advance in other rates, on the claim that they are well up on the season's shipments and that "wild" ore charters will not be a factor in the freight market for the balance of the season. The iron market has shown some improvement of late, however, and the heavy movement of ore for three weeks past is evidence that dealers are more desirous now of increasing shipments than they were a month ago.

Duluth grain shippers have for several days past been offering 3 cents on tonnage to arrive, but the conditions surrounding this part of the fall trade are not what they were at this



time a year ago. Then one big grain firm, controlling about 150 country elevators, started the ball rolling by contracting for a very large amount of tonnage at 4 cents. This business was done mainly by one firm of dealers who were in a position to do such a thing, on account of the country elevators in which they were interested. As is well known, they profited handsomely by their undertaking, but there is no contracting of this kind now. The lake movement of grain from the head of Lake Superior will not be more than two-thirds that of last year at an outside, as the crop is proportionately smaller. The main drawback to grain shipments, however, is the unsatisfactory condition of the export trade, and it is this that causes most uncertainty as to freights. In a circular letter sent out last week a firm of Buffalo brokers expressed anxiety regarding the ability of Buffalo elevators to again handle the grain this fall. Fears of a repetition of the serious trouble last fall were entertained, on account of delay brought on by the recent strike, but little attention has been given as yet to this feature in the business.

SEND 50 CENTS IN STAMPS TO THE MARINE REVIEW FOR TEN PHOTOTYPES AND GRAVURES OF LAKE STEAMERS NEATLY BOUND.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 13 Western Union Building, CHICAGO, ILL., Sept. 15.

Improvement in grain freights has come at last, and grain is being shipped at the rate of 1,000,000 bushels a day. Most vessel owners do not realize the trouble experienced in maintaining rates here for two or three weeks previous to the beginning of the present heavy movement. Vessel owners well understood, however, that a drop in rates would have brought no more business, and it would have been just so much harder to have made up later any loss that might have occurred. Once more vessel owners are to be congratulated upon the good generalship with which the contest was managed. During the dull time no agent was forced under orders from owners to break the rate in order to secure a cargo. As soon as it became evident that a boat could not get a load of grain at the ruling rate, she was taken right off the market and sent for ore. It was the best policy, for had grain rates broken, ore rates would have dropped off a notch also, and all business would have been done on the lower plane.

The steam yacht race for next Saturday will be a great success, if the weather is favorable. A good many people were skeptical about that race when it was announced, regarding it as impossible that the steam yachts here would indulge in a contest. The idea has taken, however, and all the boats will be in it.

O. S. Richardson & Co., the coal men, hit upon a happy idea as a solution of the smoke question for tugs. Mr. Richardson has proposed that a specially prepared coke, where the coal remains in the ovens only eight hours, be made for the tugs. If this coke answers the purpose and is not too expensive, it would be a great boon to the marine interest. In this fight, the tugmen have been in the wrong from the start. No one who has occasion to cross the bridges can doubt it. The tugmen were quite indifferent about their positions near bridges even when doing nothing. Tugs have lain for hours to the windward of the bridges, their smoke sweeping the entire structures, and blacking everyone who passed over. They have made a large amount of smoke and annoyance to the public which might have been avoided. It is not surprising that the public at last arose in its might and decreed that the tugs must stop smoking. This has been a fight of the public, although sundry measures of the Society for the Prevention of Smoke have been very high-handed.

Taxation of Vessel Property.

Special Correspondence to the MARINE REVIEW.

WASHINGTON, D.C., Sept. 15.—A matter that has occasioned some comment in this city is the question that has come up in North Carolina relative to the taxing of steamboats plying in the waters of that state, and which question may not be without particular interest to vessel owners on the lakes. The law creating the railway commission in North Carolina, by an oversight did not give it the power to assess steamboats. The commission recently laid the matter before the governor, and subsequently held a conference with that official. The governor has now ordered a report relative to all vessels doing business within the waters of the state, and is evidently proceeding with a view to taxing boats owned by non-residents as well as those owned by residents of the state.

The navy department is advised of an event of no little importance which occurred at the Cramps' shipyard a few days ago, being the lowering into position of the starboard after boiler of the cruiser New York. Some doubt had been expressed as to the ability of the new steel derrick to lift the boilers of the New York without accident, and as the same derrick is to be used for all of the ships now under construction at the works great interest was manifested in the attempt. Under the circumstances the successful accomplishment of the task is of considerable importance. The weight of each main boiler of the New York is about seventy tons, exclusive of fittings and details, and there are six more of the same kind.

The attention of Secretary Charles Foster was called to the West Superior, Wis., dispatch stating that the deputy collector of customs had been ordered to return all papers and instructions relating to the "Soo" canal tolls, the inference from which was that Canada had backed down from its attitude on the canal question. The secretary read the dispatch carefully, and then remarked that the reported action was all news to him. If the Canadian government has decided to adopt the course indicated, the news of such action has not yet reached the state department, and there has been no further correspondence on the subject between the Canadian and the United States government.

Kingston's Forwarding Companies.

Special Correspondence to the MARINE REVIEW.

KINGSTON, Ont., Sept. 15.—The canal tolls matter has lost its national aspect for the present but it has become a burning question between the two forwarding companies here. While the Montreal Transit Company refunds the United States tolls out of the elevating rates the Kingston and Montreal Forwarding Company does not, hence the situation has become most interesting. There are 100,000 bushels now on the way down from Duluth for the latter company, and as it is understood that the owners are under the impression that they will receive a rebate at Kingston, they are doomed to disap-

pointment. The tolls on that quantity of grain amounts to over \$600. No doubt the owners will demand the rebate, but the Kingston and Montreal Forwarding Company will remain firm, as none of its members were at the meeting which declared in favor of free elevating, and it has issued no circular announcing a change in its former system of doing business. It will be remembered that the Kingston and Montreal Forwarding Company was in favor of no tolls at all so that it could use the Ogdensburg elevator, while the Montreal Transit Company advocated tolls in the interests of Canadian shipping. It now looks as if a war of competition has begun between the companies which will, at least, reduce considerably the profits of the season.

The Hon. John Carling paid a visit to the Canadian "Soo" last week, and after going over the canal site he informed residents in that locality that the canal would surely be ready next year, but very late in the season. To finish early the contractors demand a very large bonus and a sum much larger than the extra tolls for a year. The government might therefore better recoup vessel owners than pay the bonus.

A writer in the principal government organ is urging the construction of a new canal from Lake St. Clair to Lake Erie. He says that by making use of Clarence creek and a creek emptying into Lake Erie a canal can be built at a very small cost, as the distance is only about eleven miles and the country is almost level. Aside from the retaliatory point in view, the saving of 130 miles of waterway and avoidance of the two most dangerous points for vessel traffic—the Lime Kilns crossing and Point Pelee bar—are worthy of consideration.

Official Numbers and Tonnage.

The following official numbers were assigned to lake vessels and their tonnage passed upon by the bureau of navigation, E. C. O'Brien commissioner, during the week ending Sept. 10: Sail—Margie E., built at Ashland, Wis., tonnage gross 40.77, net 38.73, No. 92,466, Marquette, Mich. Steam—Sir Luke, built at Van's Harbor, Mich., tonnage gross 44.39, net 35.49, No. 116,530, Marquette, Mich.; Squatter, built at Chicago, tonnage gross 7.77, net 5.83, No. 116,531.

Water Commerce Congress.

Some time in June of 1893 there will be held in Chicago under the direction of the World's Congress Auxiliary, authorized by the World's Columbian exposition, a Water Commerce Congress, at which meeting papers will be read by authorities on different matters pertaining to the subject. This and other congresses will be held in an art palace erected down town in Chicago and separate from the exposition buildings. John C. Dore is chairman of the committee having in charge the Water Commerce Congress and following are members of the committee: E. L. Corthell, Geo. F. Stone, Murray Nelson, D. E. Richardson, Benezette Williams and Octave Chanute.

Following are some subjects that have been selected for discussion; influence of water commerce on exploration and discovery; great waterways of antiquity and their influence on national development; modern waterways at the date of the advent of railway transportation; influence of water transportation and railway transportation on each other, with special reference to safety, speed, economy and convenience; relation of the waterways of to-day to the interests of producers and consumers; relations of the waterways of to-day to national defenses; new waterways demanded by the needs of modern civilization; laws of nature by which water commerce is affected or controlled; laws of nation by which water commerce is governed; municipal regulation of water commerce; harbor and harbor entrances.

Action taken at a congress of such ability will have influence on legislation, and the general education of the importance of water transportation that will follow will repay those interested for the time and effort made. A prospectus from the committee gives as an example of importance of the congress some lake statistics, indicating that lake commerce will receive its share of attention. The statement is given that \$120,000,000 was saved to the United States by lake commerce one year, that amount being the difference between the \$23,177,540 paid in lake freights, and the cost of carrying the same material by rail. Ship builders, owners and those interested are requested to suggest subjects and furnish names of persons capable of preparing papers.

Send 50 cents in stamps to the MARINE REVIEW for ten phototypes and gravures of lake steamers neatly bound.

A Center Screw Boat.

The accompanying sketches, from the New York Railroad and Engineering Journal, show a longitudinal section, a cross section and a plan of the *Louvre*, a vessel of novel construction, built to run between Paris and Bayonne, and so necessarily adapted to both river and coasting work. The shallow waters of the Seine limited the draft to 9.1 feet, and the vessel is accordingly made flat bottomed; she is 171 feet long, 27.9 feet beam, and has a displacement of 800 tons when fully loaded.

The chief peculiarity is the adoption of M. Oriolle's plan of placing the screws at the center of the boat, in tunnels made to receive them. Their position is shown in the sketches. There are two of these screws, each 5.9 feet in diameter and 6.5 feet pitch. Hatchways are provided, so that any repairs to shafts or screws can be made without docking the vessel, the hatches being enclosed to a point above the water line.

Sworn Statement of H. W. Stewart.

In Cleveland on Saturday last, H. W. Stewart of Algonac, Mich., the only survivor of the Western Reserve disaster, affixed his signature to several legal documents bearing upon the accident. Stewart is an elegant specimen of physical manhood, and of bright, shrewd manner. A copy of a sworn statement from him relative to the accident is printed below as a matter of record:

"We locked through the Sault after dinner, August 30. Passed Whitefish point about 4 o'clock and adopted the usual course to clear Keeweenaw point. Wind was westerly with a sea running more from northwest, increasing. The subscriber and affiant went into his room forward about 7 o'clock. Up till

sized her, throwing all into the water. With the aid of a life preserver which I found and fastened on in the water, I made my way through the breakers and reached the land about ten miles above Deer Park. The others all perished."

Facts on Lake Commerce.

Some interesting facts are gleaned from the report on lake commerce recently given out by S. G. Brock, statistician of the treasury department.

The value of commerce passing the Sault canal has increased during the past ten years from \$28,000,000 to \$128,000,000.

The area of the great lakes is 270,000 square miles, bordering on eight states, with 26,000,000 population.

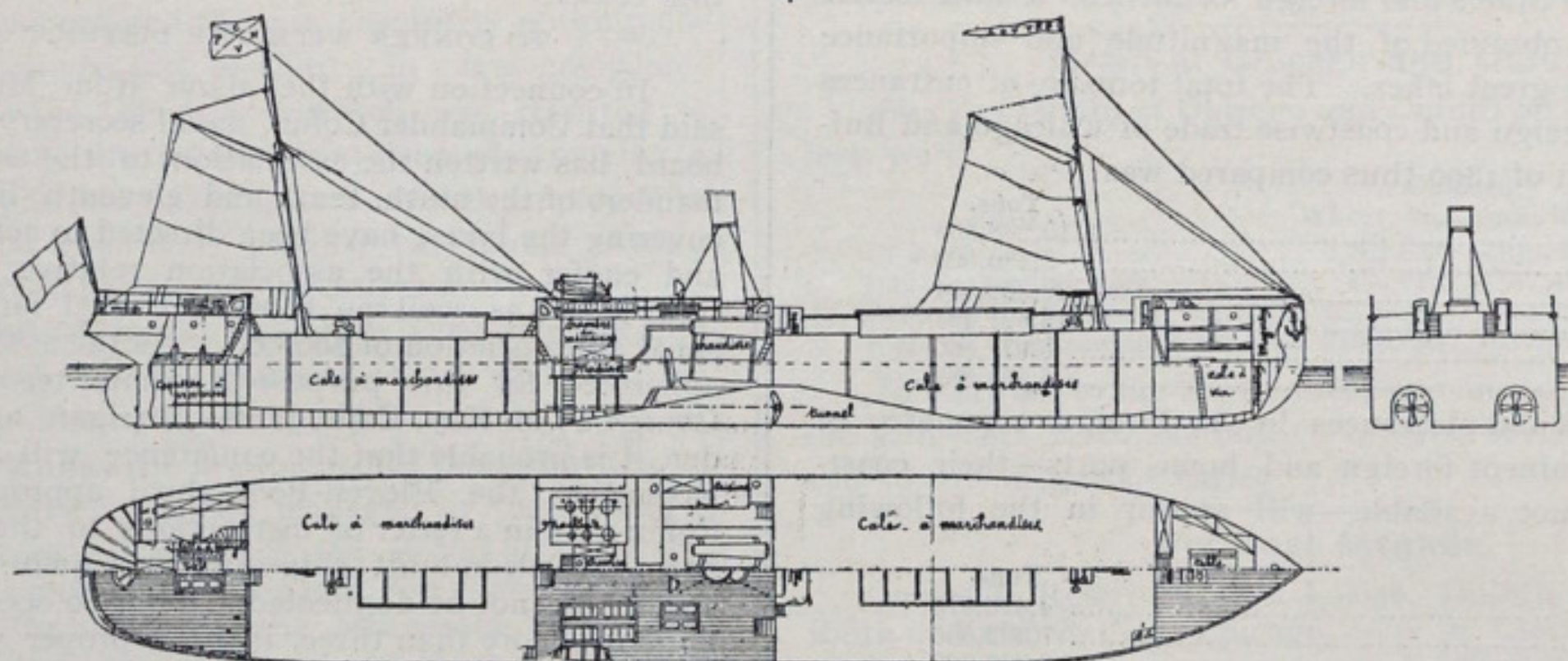
On the lakes are six cities having a population exceeding 100,000.

Excluding tugs, steam canal boats and sailing vessels the lake marine consists of 2,125 vessels, 870,000 tons, valued at \$57,054,000.

If the tonnage carried by this fleet last year were loaded in freight cars, 13,400 miles of track would be required to contain them. The estimated value of this traffic was \$342,522,000.

The John Jacob Astor was the first American vessel launched on Lake Superior (1835).

The government has expended the total amount of \$37,247,993 for improvement of the lakes—less than one-third the amount saved to the country by lake commerce in one year.



9 o'clock the sea was very heavy, causing the vessel to labor and occasionally pound hard but making reasonably good weather. At the hour mentioned there was a violent jolting shock and jar, followed by noise of a spar breaking and falling on deck. Affiant started up and Capt. Myers came and called out to get out quickly, she would sink. Affiant partially dressed, hurried out and ran aft on port side of vessel. There was a break in the deck forward of the mainmast, and the mainmast was broken off somewhere near the middle, the broken part lying on deck. The night was very dark. The wind had died down for a shift of wind but the sea very heavy. Both boats were launched, one on port and the other on starboard. Into the starboard boat there got Capt. Minch, managing owner, his wife and two children, his sister-in-law and her child—all of them were making the trip with us—and Capt. Myers and others of the crew, in all seventeen in that boat. We picked up the other wheelsman who had failed to get into either boat, and in a short time we picked up another man who reported that the other boat had capsized. We saw and heard the steamer go down with a great noise. The wind as before stated had died away for a shift of wind and in a very short time it came again from the N.N.W., blowing hard, and through the night the sea seemed to increase. The steamer went down nearly sixty miles above White Fish point, according to Capt. Myers' calculation. The sea was so heavy that it was simply impossible to do anything else but to head our boat right before wind and sea. We tried to keep her up but could not do it. The water was coming over the side so we had to bale constantly even while running before it. We thus ran for ten hours making about thirty miles, when at 7 o'clock in the morning of the 31st, when perhaps a mile off the beach, a succession of heavy seas caught our boat, lifted her nearly on end, filled her as she came down, and cap-

The Griffin, built by La Salle, was the first sailing vessel launched on the lakes (1679). She was lost on her first return voyage from Green Bay.

The first American vessel on the lakes was built at Erie in 1797. The first steam vessel on the lakes, measuring 240 tons, was built at Sackett's Harbor, N. Y. The first steam vessel on Lake Erie was the Walk-in-the-Water launched at Black Rock early in 1818.

The schooner Illinois was the first vessel to go from the lower lakes to Chicago.

More Cargo Records Broken.

In delivering at Buffalo last week 113,839 bushels of wheat from Chicago, the steamer *Onoko*, owned by the Minch estate of Cleveland, broke another cargo record. This is the largest cargo of wheat ever carried on the lakes, although the steamer E. C. Pope has a record of 125,730 bushels of corn between the same ports, which is in weight more than 100 tons larger than the *Onoko's* cargo. The *Onoko's* bill of lading called for only 113,734 bushels of wheat but she delivered 105 bushels more than the amount called for in the bill of lading.

The steel steamer W. H. Gilcher has just taken 3,300 tons of hard coal from Buffalo to Chicago. The tow barge *Golden Age* a few days ago delivered 153,000 bushels of oats at Buffalo from Chicago, and the steel steamer W. H. Gilbert delivered 106,000 bushels of wheat at the same port from Duluth on a draft of 14 feet 6 inches.

Compared With the Great Maritime Cities of the World.

The most important feature of the report just issued by the bureau of statistics, treasury department, on the freight traffic of the great lakes in 1890, is a summary of the entire coastwise and foreign business. As the figures of this summary will be taken as official in the future they are here printed in full:

SUMMARY OF LAKE TRAFFIC FOR 1890.

Freight carried in United States coastwise trade.....28,295,959 tons.
 " " " " foreign " 2,003,047 "

Total freight carried to or from United States ports....30,299,006 "

DIVISION OF COASTWISE TRAFFIC.

Flour and grain.....4,271,346 tons.
 Iron ore.....9,132,761 "
 Coal.....5,735,299 "
 Lumber and lumber products.....6,869,660 "
 All other merchandise.....2,286,893 "

Total28,295,959 "

UNITED STATES TRAFFIC ON DETROIT RIVER.

Coastwise, down.....15,344,433 tons.
 " up.....5,771,164 "
 Foreign, down.....463,282 "
 " up.....309,593 "

Total.....21,888,472 "

Another part of the report makes some very interesting comparisons. Chicago and Buffalo are the two leading ports of the lakes in the magnitude of their commerce. If the commerce of these two ports be compared with the commerce of prominent ports of the United States and foreign countries, a still better knowledge will be obtained of the magnitude and importance of the traffic of the great lakes. The total tonnage of entrances and clearances, foreign and coastwise trade of Chicago and Buffalo, for the season of 1890 thus compared was:

	Tons.
Chicago.....	10,288,868
Buffalo.....	9,560,590
London.....	20,962,534
Liverpool.....	16,621,421
Glasgow.....	5,977,860
Hull.....	5,061,882

The entrances and clearances in the foreign commerce of the following prominent foreign and home ports—their coastwise commerce is not available—will appear in the following table:

	Tons.
Havre.....	4,418,876
Marseilles.....	7,392,556
Antwerp.....	8,203,999
Hamburg.....	10,417,096
Bremen.....	3,481,769
New York.....	12,646,555
Boston.....	2,676,387
Philadelphia.....	2,585,866
San Francisco.....	1,986,483

By these comparisons it will be observed that the the commerce of the two inland cities, Chicago and Buffalo, and which consists almost wholly of a coastwise trade within the confines of the great lakes, compares most favorably with the tonnage movement of the great maritime cities of the world.

A Very Fast Freight Boat.

When the Detroit Dry Dock Company added a system of forced draft to the powerful propelling machinery of the Cleveland-Cliffs Mining Company's steamer Pioneer, it was expected that the steamer would prove very fast, although there was no boasting about her steaming qualities. Now the statement is made that the boat on her last trip up made the run from Buffalo to Detroit, 255 miles in 15 hours and 10 minutes, or an average of a small fraction less than seventeen miles an hour. This statement will very probably be taken with doubt by some masters and engineers who are skeptical about high rates of speed in lake freight boats, but there is every reason to believe from a knowledge of the boat that it is entirely reliable. It is the best time ever made by a freight boat on the lakes, and will probably be borne out by later tests of speed from the vessel. In the test of speed given the Union line steamer Owego, season of 1890, the average time between Buffalo and Chicago was 16.4 miles an hour.

Lake Carriers' Association.

M. A. BRADLEY, President.

VICE-PRESIDENTS: { James W. Millen, Detroit, Mich. John G. Keith, Chicago, Ill.
 Frank J. Firth, Erie, Pa. W. S. Brainard, Toledo, O.
 Thomas Wilson, Cleveland, O. R. P. Fitzgerald, Milwaukee, Wis.
 Peter F. Miller, Buffalo, N. Y. Alex. McDougall, Duluth, Minn.
 Charles H. Keep, Secretary, Buffalo, N. Y. Geo. P. McKay, Treasurer, Cleveland, O.
 Harvey D. Goulder, Counsel, Cleveland, O.

From information furnished the Cleveland officers of the association by Secretary Keep it would seem that the light-house board is moving very promptly in providing the aids for navigation secured from the last congress. Mr. Keep says: "Mr. Walfred Sylven, superintending engineer of the board, has already commenced negotiations with Messrs. Duff & Gatfield for the purchase of two floating lights at the Lime Kilns. He has also been getting information as to the character of the lightship required for the service at Bar Point, and as to the best use that can be made of the three lightships for the Detroit river authorized by congress. The present plan of the board is to purchase from Duff & Gatfield the two floats and to secure their services in looking after them if it can be done at a reasonable price. They also seem favorably disposed towards placing one of the three additional light-ships authorized at Ballard's reef. The two other light-ships will be constructed and held in reserve to replace the Lime-Kiln's lights in case they are carried away or destroyed. For Bar point the board proposes to build a light-ship about 90 feet long and Mr. Sylven has already engaged draughtsmen in New York to make the drawings for this vessel."

TO CONFER WITH THE DISTRICT OFFICERS.

In connection with the above from Mr. Keep, it can be said that Commander Coffin, naval secretary of the light-house board, has written the association to the effect that the commanders of the ninth, tenth and eleventh light-house districts, covering the lakes, have been directed to act together as a board and confer with the association relative to the Detroit river light-ships as well as those provided for by the Eleven-Foot shoal appropriation of \$60,000. As the association had already appointed for this purpose a committee consisting of Capt. George P. McKay, Capt. James Corrigan, and Harvey D. Goulder, it is probable that the conference will take place shortly. Regarding the Eleven-Foot shoal appropriation Commander Coffin says in a letter of instructions to the inspectors: "The \$15,000 Toledo-built ships are inadequate and unsatisfactory and should not be duplicated. The \$60,000 appropriation will build not more than three, if three, proper vessels. The board requests you to ascertain and report as to whether two vessels will not accomplish all that can properly be expected at this time. Granting that one light-ship will go on Eleven-Foot shoal, please state where in your opinion the other light-ship, and possibly the other two light-ships, should be placed. Please report as to whether proper vessels for this service can be bought, and if so where and at what cost each."

Wrecks and Heavy Losses.

Tug Paige, owned by W. H. Singer of Chicago and valued at \$6,000, was burned at the mouth of Siskiwita river, Lake Superior.

Another schooner, the Guiding Star, is left to fate on Lake Superior, and will probably go to pieces. She was lost in the gale of the first of the month. The Guiding Star was owned by C. H. Weeks of Bay City and was valued at \$5,000.

The wooden steamer Neshoto, ashore at Keweenaw point and in bad shape, is owned by Robert Rhodes and others of Cleveland and has an insurance valuation of \$135,000. She is insured for \$110,000 in the following companies: Commercial Union, \$18,000; C. W. Elphicke & Co., Chicago, \$8,500; St. Paul Fire and Marine, \$8,500; Michigan Fire and Marine, \$10,000; London Assurance, \$20,000; Western Assurance, \$22,500; British and Foreign, \$22,500.

The schooner City of Toledo, lost near Manistee, Lake Michigan, in the same storm with the Western Reserve, was built in 1865, owned by the Manistee Lumber Company and valued at \$5,000. Capt. James McMillan and daughter of Manistee and the crew of five men were lost. This loss of life in connection with that on the Western Reserve, including the six passengers and captain and crew of twenty-one men, marks it as the most disastrous storm for a number of years.

Record of Speed and Big Cargoes.

[Masters or owners are invited to report improvements on this list.]

Iron ore: Maritana, Minnesota Steamship Company of Cleveland 4,260 gross, or 4,771 net tons; Escanaba to South Chicago; Maryland, Inter-Ocean Transportation Company of Milwaukee, 3,663 gross, or 4,103 net tons, Escanaba to South Chicago; draft 17 feet 4 inches.

Grain: E. C. Pope, Eddy Bros. of Bay City, 125,730 bushels of corn, Chicago to Buffalo, draft 14 feet 8 inches; Onoko, Minch estate of Cleveland, 113,839 bushels of wheat, Chicago to Buffalo.

Speed: Owego, Union Line of Buffalo, Buffalo to Chicago, 889 miles, 54 hours and 16 minutes, 16.4 miles an hour; Saranac, Lehigh Valley Line of Buffalo, Buffalo to Lime-Kilns, 240 miles, 15 hours and 10 minutes, 16 miles an hour.

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St. Cleveland, O.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company.....	\$100 00	\$.....	\$ 70 00
Champion Iron Company.....	25 00	.....	58 00
Chandler Iron Company.....	25 00	44 50	46 00
Jackson Iron Company.....	25 00	.....	90 00
Lake Superior Iron Company.....	25 00	.....	43 00
Minnesota Iron Company.....	100 00	.....	75 00
Pittsburgh & Lake Angeline Iron Co....	25 00	.....	.....
Republic Iron Company.....	25 00	.....	11 00
Ashland	25 00	.....	.....
Section Thirty-three.....	25 00	.....	5 00
Brotherton.....	25 00	2 00	2 50
Iron Belt.....	25 00	2 25	2 50
Aurora.....	25 00	8 25	.....

With every new list of quotations prices of stocks in the older companies are reduced and there is absolutely nothing doing, outside of an occasional sale of shares in a few companies specially favored. At the Champion, which was reported to have resumed operations, the management is simply moving a portion of the stock pile and keeping men enough employed to have the mine in shape when it is decided to resume mining later. Mine managers generally are investigating work on the Mesaba. Joseph Sellwood, manager of the Chandler, was on the new range last week, and is reported to have said that the "Biwabik is the biggest thing in the shape of an iron mine in the world." Some significance is attached to the recent trip to the range made by Henry C. Frick, manager of the Carnegie works, and other eastern capitalists. It is not at all probable, however, that there is anything in the talk of a consolidation of interests between the Carnegies and the Minnesota Iron Company or the Illinois Steel Company. Among those in the party with Mr. Frick were J. H. Chandler, J. C. Morse, H. H. Porter and Samuel Mather, all interested in the Illinois Steel Company and Minnesota Iron Company, and B. Brewster and H. Siebert of New York.

Shipments of iron ore from Two Harbors up to and including Wednesday, Sept. 7, aggregated 823,509 gross tons, of which 470,978 tons were from the Chandler, 345,119 tons from the Minnesota, 2,525 tons from the Pioneer and 4,887 tons from the Zenith mine. On the same date shipments from Ashland aggregated 1,546,159 gross tons, divided among the different mines as follows: Ashland 150,257 tons, Aurora 230,150 Colby, No. 2, 46,046, Rand 17,233, Tilden 165,877, Taylor 14,640, Globe-Ashland 5,309, Iron Belt 116,118, Montreal, south vein, 1,161, Montreal, north vein, 22,961, Palms 42,831, Section 33, south vein, 2,362, Section 33, north vein, 3,133, Anvil 1,696, Brotherton 75,568, Comet 25,049, Carey 22,324, Newport 81,024, Imperial 3,456, Norrie 310,541, East Norrie 148,419, Odanah 2,242, Pabst 38,599, Eureka 5,086, Sunday Lake 40,114, Windsor 18,936, Jack Pot 1,609.

Royalties on the older ranges must be reduced to very low figures. It is becoming evident that in many cases royalty mines on the Marquette and Menominee can not compete in any way with the new districts now being developed.

The Penn Iron Mining Company had shipped up to Wednesday, the 7th inst., 259,818 tons of ore and the output is about 2,000 tons per day.

Shipments from Two Harbors are now within 62,000 tons of last season's total.

Wreck of the Wetmore.

The whaleback steamer C. W. Wetmore, built at West Superior last year by the American Steel Barge Company and valued at \$175,000 is, with a \$52,000 coal cargo a total loss. The wreck occurred about midnight on the 7th inst., as the vessel was leaving Coos bay, Oregon, loaded with 2,800 tons of coal. She ran into one of the sand spits in this bay and was dashed to pieces. Her crew was saved by taking to the life boats. A dense fog was on at the time of the wreck and it is due to this that the disaster occurred. The force of the shock bent her bow stanchions in a manner that showed she went on very hard. The Wetmore was 265 feet over all and 38 feet beam with a capacity of 2,800 tons. She was, at the time of the wreck, the property of the Pacific Steel Barge Company, and had been engaged in the coal carrying trade between San Francisco and Tacoma, for the past three or four months. Changes were made in the boat since she left the lakes. Along her deck turrets had been placed her entire length and stanchions had been placed along her sides, strengthening her very much. She disabled her rudder while rounding Cape Horn, on her way to the Pacific and was towed into Astoria by the steamer Zambesi. After being repaired she ran on a bar in Puget Sound and was again damaged. Last February she ran on the rocks in Victoria harbor and was laid up for repairs. In April her bows were stove in while going from San Diego to Victoria, and she met with several minor accidents before going ashore.

Grain at Chicago and Duluth.

Stocks of grain at Chicago and Duluth on Monday, the 12th inst. were:

	Chicago.		Duluth.
	Wheat, bu.	Corn, bu.	All wheat, bu.
In store.....	6,752,624	5,243,603	1,424,000
Increase for the week.....	460,776	617,198	.....
Decrease for the week.....	.....	.....	107,000
Increase over same time last year.....	3,105,896	1,223,864	.....

In addition to the above there was in store in Chicago on the 12th inst., 2,162,485 bushels of oats, 212,210 bushels of rye and 59,001 bushels of barley.

Personal Mention.

James T. Rose of Rose & Lazier, Duluth, and Capt. John Keith of Keith & Carr, Chicago, were in Cleveland during the week. Both gentlemen were visiting different ports around the lakes.

Stewart Murray, late agent of the Northern Steamship Company at Minneapolis, will act as assistant to Manager Gordon of the Northern and Lehigh lines at Buffalo, looking after the Lehigh boats more especially.

The death of Capt. Peter J. Kenney of the steamer Florida one of the best known masters on the lakes, is announced from Buffalo. Capt. Kenney was fifty-five years old and had been actively engaged in lake service for about thirty-five years. He leaves a widow and five children.

Mr. Gilbert N. McMillan, secretary of the Detroit Dry Dock Company, stopped in Cleveland, Thursday, on his return from Pittsburgh and Philadelphia. At the latter place he inspected some of the heavy planing machinery building by Bement, Miles & Co., for the Dry Dock Engine Works.

The pall bearers at the funeral of the late Peter G. Minch in Cleveland on Saturday last will all be recognized as his life-long friends. They were Capt. William Young, Capt. George P. McKay, Capt. John H. Palmer, Messrs. J. T. Hutchinson, H. J. Webb, H. A. Hawgood, Henry D. Coffinberry and Robert Wallace.

In referring to the big cargo of wheat recently delivered at Buffalo from Chicago by the steamer Onoko, John Chamberlin says in the Buffalo Express: "Capt. William Trinter almost on his last visit to Buffalo, was the object of some chaffing about the new boats that were knocking out his boat's record. He smiled quietly and remarked that some day when the other boats had done what they could and got through he would show them what the Onoko could do. He was not spared to make the trial, but the boat has done the work without him."

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, } PROPRIETORS.
F. M. BARTON, }
HOMER J. CARR, Associate Editor and Manager Chicago Office,
Western Union Building, 110 LaSalle Street.

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The books of the United States treasury department contain the names of 3,600 vessels, measuring 1,154,870.38 tons in the lake trade. In classification of this fleet the lakes have more steamboats of 1,000 to 2,500 tons than the combined ownership of this class of vessels in all other sections of the country. The number of vessels of 1,000 to 2,500 tons on the lakes on June 30, 1891, was 310 and their aggregate gross tonnage 512,787.58; in all other parts of the country the number of this class of vessels was, on the same date, 213 and their gross tonnage 319,750.84. The classification of the entire lake fleet is as follows:

Class.	Number.	Tonnage.
Steam vessels	1,592	756,751.53
Sailing vessels.....	1,243	325,131.06
Canal boats.....	703	72,515.42
Barges.....	62	20,472.37
Total.....	3,600	1,154,870.38

Tonnage built on the lakes during the past five years, according to the reports of the United States commissioner of navigation, is as follows:

	No. of boats.	Net Tonnage.
1887.....	152	56,488.32
1888.....	222	101,102.87
1889.....	225	107,080.30
1890.....	218	108,515.00
1891.....	204	111,856.45
Total.....	1,021	485,042.94

St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 228 days of navigation, 10,557; tonnage, net registered, 8,454,435. Number of boats through Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014. Number of boats through St. Mary's Falls canal in 1891, 225 days of navigation, 10,191; tonnage, net registered, 8,400,685. Number of boats through Suez canal during 1891, full year, 4,207; tonnage, net registered, 8,698,777.

Entered at Cleveland Post Office as Second-class Mail Matter.

AT THE last meeting of the Cleveland managers of the Lake Carriers' Association a letter from Mr. C. H. Keep was read, in which the secretary, referring to his recent trip to Washington says: "I think I did not mention in my letter to Mr. Bradley that by direction of the light-house board, Capt. Mahan, engineer secretary, has addressed a letter to Gen. Poe directing him to prepare a comprehensive plan for lighting the "Soo" river. The letter refers to Gen. Poe's acquaintance with the river, and his acquaintance with the methods and resources of the light-house board. It directs him to make a plan which shall leave nothing undone to make the river safely navigable at night. He has been authorized to favor any increase in the number of lights which may seem to him desirable, and the board even suggests that he may favor the making of artificial day-light at special points if the necessity therefor exists. He has been requested to transmit this report to the light-house board in time for transmission by the board to congress when it meets in December. He has also been requested to accompany it with the latest statistics and information showing the extent, character and means of conducting the commerce of the river."

Unless we are very much mistaken, Gen. Poe, who is probably possessed with a better knowledge of everything pertaining to the St. Mary's river than any living person, must be pretty well disgusted with such correspondence at this time. Why do not the secretaries of the light-house board, who have made so many public confessions of incapacity in this matter of lighting the St. Mary's river, stop to consider the position in which they have placed themselves, and make amends by going ahead with the necessary additional lights? Gen. Poe has told them, according to a dispatch furnished the Associated Press in Washington by themselves, that he navigated the river by night with the Warrington, a vessel drawing about 12 feet, and it is

known by everybody here that no less than 150 vessels, most of them of the full canal draft of more than 14 feet, have been piloted up and down the river since it has been lighted, with the number largely increased since the range at Harwood point, foot of Sugar island, has been in service. Gen. Poe's recommendations as to additional lights have not been made public, but it is not probable that his views would differ materially from those of Col. Ludlow and Commander Heyerman, whose work has been proven to be thorough in every way, although the board refused to grant them justice.

Everybody will commend any efforts on the part of the board to treat this question on the grand scale of which it is deserving, and to look to the future importance of the project of lighting such a channel, but the talk of making artificial day-light at a time when more lights at a nominal cost is all that is wanted, is certainly exasperating in the extreme. The channel is there, cut and dredged out of rock. It might not be amiss to inform the secretaries that there are no such obstructions as stumps of trees or logs in this channel; neither are there sand bars forming from day to day. A flood of electric light, if such a thing was possible or practicable along the miles of river is not what is wanted. Give the vessel masters a full and complete system of range lights, at a moderate cost and we venture the prediction that the little confidence now lacking will come to them, and with the opening of next season every steamer in the Lake Superior trade that is without a tow will be running the river by night as well as by day.

IN THE mass of statistical information relative to the internal commerce of the United States now going forth from the bureau of statistics, treasury department, a report on the commerce of the great lakes, the Mississippi river and its tributaries is about ready for distribution. Mr. S. G. Brock, chief of the bureau, has favored the REVIEW with an advance copy of this report. It is the most complete compilation of figures on the magnitude of the lake marine that has ever been prepared, and is, as far as can be seen from a hasty examination, reliable and correct. That such is the case is greatly due to Mr. C. H. Keep, secretary of the Lake Carriers' Association. Among subjects treated is a history of early lake navigation, a description of channels and harbors, dock facilities, carrying capacity of the larger vessels on the lakes, dimensions and speed of same, and comparison of lake and rail freights, which shows the economic value of lake traffic to the producer and consumer. These statistics will go far towards showing that the inland commerce of the United States is one of its greatest wealth producing features.

Work of the Ship Yards.

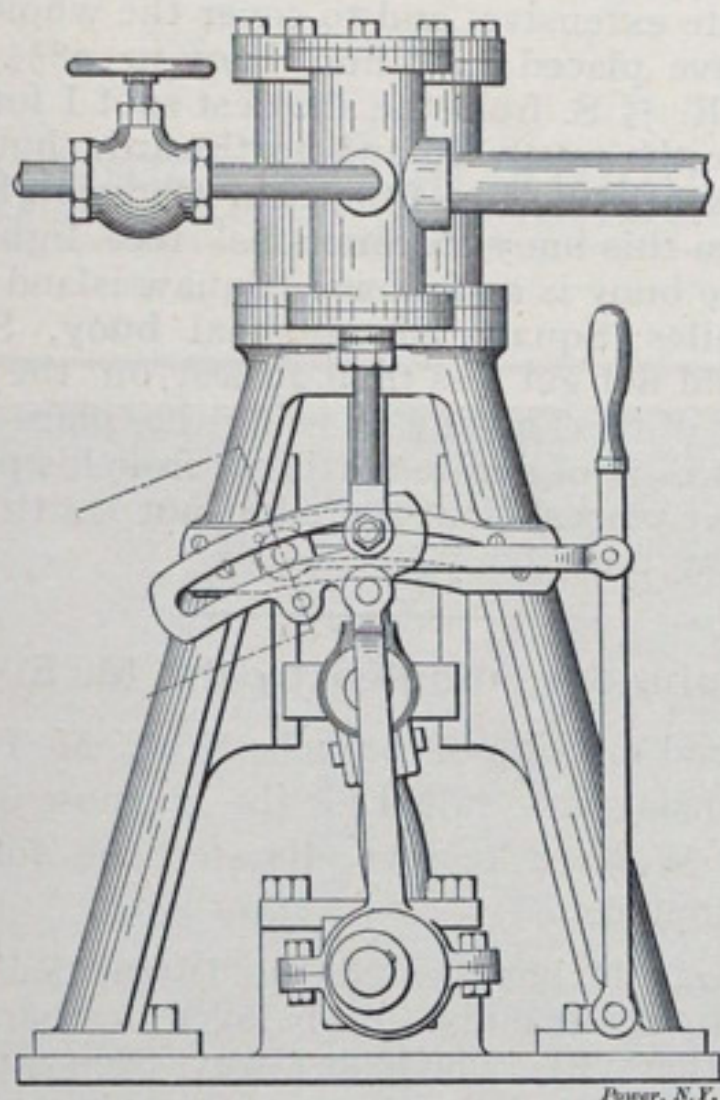
At Oscoda on Thursday last a steambarge for the lumber trade, the Seattle, was launched for the H. M. Loud & Sons Lumber Company. She is 175 feet over all and 35 feet beam.

The national eight-hour law has caused a hitch in the arrangements of the Union Dry Dock Company of Buffalo with the treasury department for the building of the revenue cutter Calumet, to be used by the collector of customs at Chicago. If the treasury department rules that the law will apply to the workmen of the dry dock company engaged on the new boat, it is probable that the contract will be thrown up.

A great deal was expected from the whale-back Pathfinder and consort Sagamore in carrying capacity. The Pathfinder is 325 feet keel and 42 feet beam, this size putting her in the class of the largest steel steamers turned out this season. Her first load is 2,705 gross tons on a draft of 14 feet 8 inches. Her barge, the Sagamore, which will be picked up at Two Harbors next trip, brought down 2,995 gross tons on her first trip, and that was about the number of tons the Pathfinder was expected to carry. The steamer is quite fast however, having made the run from Port Huron to the canal in 20½ hours. There is nothing but a West Superior foundation for the statement that two more whalebacks will be built for the Huron Barge Company, which owns the Pathfinder and Sagamore.

Hamilton's Valve Gear.

The gist of this invention lies in the device by which a single eccentric is made to effect the reversing movement of an engine. By referring to the illustration it will be seen that the valve-stem link is provided with a pivotal point which does not change its position relative to the link, but which may be shifted to and fro to positions on opposite sides of the valve stem. When the link is in the position shown in the cut it merely acts as a connection between eccentric rod and valve stem; when the



pivot and link are pulled to the opposite end of the arc by the hand lever, the link acts as a rock arm, transferring the motion of the eccentric rod to the valve stem in a reverse direction, thereby reversing the engine. When the link is in an intermediate position, the pivot is in line with the valve stem, and the latter, of course, has no motion. The inventor of this valve gear is James Hamilton, Bridgeport, Conn.—American Ship Builder.

Cruise of an Ancient Mariner.

(INVOLVING SOME FACTS IN LAKE SUPERIOR HISTORY.—CONTRIBUTED.)

Our old friend and quondam ship-master, Captain George P. McKay, has lately been renewing his youth and his old time friendship by a cruise to the upper lakes. The desire to get on the bridge again and snuff some air uncontaminated with coal smoke and to have a quiet afternoon "watch below," has been growing for several years and finally carried him on board the Northern King on her last trip up, leaving Cleveland at midnight on the 19th ult. A most delightful voyage of exactly seventy-two hours found the King passing the pier heads of Duluth harbor. The weather was perfect, and the yarns of the genial master of the ship, Campau, would have made even a foul weather voyage pleasant. At Duluth the 22nd was spent most delightfully in inspecting the very complete and altogether fine plant of Capt. McDougall's ship yard and dry dock, and by a drive with Capt. Wolvin over the famous boulevard and a dinner at the club with old-time friends and shipmates. In the afternoon, by the courtesy of Capt. Inman, a tug was furnished for a trip across the bay to old Superior, to hunt up the mortal remains of the schooner Algonquin, on which Capt. McKay served his apprenticeship as a very light-weight foremast hand away back in 1846. The bones of the little craft were found, where she died at the dock, many years ago. Not much is left of her, only her frames and a few planks, with her stem and sternpost solid, and her outline yet preserved. After a precarious trip through the mud the party got on board the wreck, where the captain was at once struck with the smallness of the craft. His experience of late years as a master of passenger boats and steam barges has made a schooner of 45 feet in length and of 75 tons measurement seem small, although she was quite a ship in the days when he began sailing. The schooner Algonquin was built by Geo. W. Jones, still a resident of Cleveland, at Black River, O., was sailed to the Sault and hauled over the portage there, and launched in Lake Superior in the fall of 1839. The same fall the schooner Mary Elizabeth was hauled over the portage; later she went ashore and was wrecked on the beach between Whitefish point and Two Heart river. Previous to this, the brig John J. Astor, in 1835, had been put together and launched above the Sault. Her frames and timbers had been got out by the same builder at Black River, shipped up the lakes and put together and launched there. These three, the brig Astor and schooners

Algonquin and Mary Elizabeth, were the pioneers of the fleet from the lower lakes.

Of course the stay at Duluth was too short to see the half of it. It was very interesting, and its growth and development, after an absence of eighteen years, was amazing. But this was distinctly not a cruise ashore, so after noting the fact that a light is very much needed on the west pier at Duluth to distinctly mark the entrance to the harbor, the ancient mariner boarded the Jay Gould, and at 1 a. m. on the 23rd ult. took departure for the Portage lake entrance. Next morning, when the forenoon watch turned out, it was to find the ship moving very slowly in a thick fog, and with a certainty that she was somewhere among the Apostle islands. Here again the captain's log-book shows that with a good fog horn at the light-house on Sand island, and another on Raspberry island, the skipper might have known where he was without getting the point of York island so close aboard as happened on this morning. The fog lifting as the sun rose higher, a pleasant run was had up Chequamegon bay to Ashland, where the Jay Gould put on the dock a part of her deck-load of flour, in order to have her hatches clear to take on lumber at Washburn. While shipping her lumber at Washburn a visit was made to La Pointe, on Magdalena island, to see old Capt. "Jack" Angus, a veteran skipper of seventy-nine years, who was a ship-master on Lake Superior in 1839. The talk with him (and he had known "George" from his very earliest days) was most interesting. Capt. Angus, then a Scotch sailor, was sent to Lake Superior in 1839 by the American Fur Company, to command one of their vessels, the Algonquin; was married at the Sault, and settled at La Pointe the year after, and there he has had his home ever since. Both he and his wife are still hale and hearty, and quite abreast with the modern idea, and very clear in recollections of the old days, before the times of steamboats and saw-mills. The time here was all too short, and the ferry-boat for Ashland broke up too soon this notable meeting of old-timers at an ancient place, altogether idyllic in its sweet and picturesque beauty. In the path of bustling commerce this very old settlement retains all of its old quiet, natural beauty, and keeps alive all the old traditions of the *voyageurs* of the days of Frontenac and the early French explorers. A few hours were spent with old friends on arriving at Hancock and Houghton. Coasting on down to Marquette a day was passed here, with a drive to Presque Isle, and a spell of yarning on the cliffs, at ease on the dry moss and ferns, under the shade of birch and hemlock trees. At midnight the course was shaped for the Sault on board the Pontiac, and at the lock-gate the ancient mariner went ashore. Here he was at "home again," sure enough, for two whole days. At the Sault he passed his boyhood, away back in the forties, and here were many meetings with the old Frenchmen and half-breeds who were boys then themselves. It was a pleasure to see the old brown faces light up with smiles, their eyes sparkle with delight, and to hear their tongues chattering the "French of the country" with their old-time playmate "George," who found at church on Sunday and on the streets rather saddening changes. As he expressed it, "It is not like the old village, and there are too many white people here." Having seen the improvements making under General Poe's direction and carefully inspected the lock, building in Her Majesty's dominion, the next thing was to find a boat bound down. They were there by scores, but it was the oft repeated story, they were loaded in many cases to 14 feet 10 inches and there was but 14 feet 8 inches of water over the mitre sill. But the delay of twelve hours was neither unpleasant nor unprofitable, and a visit with "old man Stiles," now a trusted employe on the government force at the lock, was especially memorable. Stiles and McKay were shipmates on the old Independence when she exploded and sunk in 1852 just above the Sault canal, and are the only survivors of the crew of the first steamboat that turned a wheel in Lake Superior, and which wheel, by the way, is lying in the lock yard now, and, as is becoming, is in charge of Stiles himself, along with the other objects of interest on the lock grounds. At last, on Sunday afternoon, the good ship Nyanza scraped through, and a warm *Welcome* was found on board.

The trip down the St. Mary's was made after dark, affording positive confirmation of opinion as to the righteousness of Colonel Ludlow's contention with the light-house board. The ranges were run beautifully to the foot of Sugar island. There the boat slid off into unlighted gloom and had to feel her way unaided through the intricate passage until she was able to pick up the ranges at the "Dark Hole." The proof of the correctness of Col. Ludlow's scheme is there and just one night's voyage is needed to convince the most conservative and skeptical of the correctness of the Colonel's plan and the necessity of adoption in its entirety. Good luck was with the ship and the run to Detroit was without accident or unusual incident. At Bois Blanc island the captain went ashore in the grey of early morning of the 31st ult., to spend a happy day at the light-house and on the Canadian shore, before crossing the lake on one of the regular Detroit and Cleveland boats, to return to duty in Cleveland.

Cleveland, Sept. 2, 1892.

C. S. P.

Lieut. A. E. Baker, U.S.N., superintendent of the marine division of the World's Columbian Exposition, makes the announcement that there will be an office and headquarters for marine men and the ship building industries of the United States. The room will be furnished with professional literature and periodicals of interest, and those concerned are invited to take advantage of the facilities there offered.



M. J. Galvin has taken the steamer Nebraska to satisfy a mortgage at Chicago and will lay her up.

Keel blocks are being placed in position at the yard of the Globe Iron Works Company, Cleveland, for one of the Lake Superior passenger steamers.

We are indebted to Capt. Leonard G. Shepard, chief of the revenue marine, for a register of the officers and vessels of that division of the treasury department.

The treasury circular of June 28 last directing the vaccination of seamen in the districts of the great lakes, and the Ohio and Mississippi, has been revoked by the supervising surgeon general of the marine hospital service.

Licenses of Capt. F. A. Sears and Mate Elmer Redner of the Pilgrim and Capt. Dennis Cummings and Mate Joseph Lewis of the Kalamazoo, steamers that collided running at full speed in a fog, were revoked by Chicago inspectors.

Before the next issue of the REVIEW Leopold & Austrian, the Lake Michigan and Lake Superior Transit Company, will very probably have signed a contract for a steel passenger steamer. It is thought the contract will go to Chicago or West Bay City.

A suit will come up at Marquette, brought by G. G. Scranton against the United States for damages alleged through building of the southwest Sault canal pier on which the light-house stands. Several vessel masters will testify to the necessity of the change in piers.

The bravery of Capt. Lambert, Chantry island light-house keeper, in rescuing Capt. Caldwell and two of his crew from the rigging of the Nett Woodward, should be recognized by the Canadian government. The Woodward was owned by Capt. Caldwell and was uninsured.

It is evidently the intention of the Shores Lumber Company, Ashland, Wis., to possess a fleet of lumber vessels large enough to take care of their large output from the Lake Superior regions. Their latest purchase is from John Kelley of Saginaw, and consists of the steamer J. H. Prentice, barge Middlesex and schooner Halstead, the price being \$75,000. The Halstead was recently purchased for \$13,500 from John Keith of Chicago.

With the names of barges belonging to the Kingston & Montreal Forwarding Company an interesting menagerie could be collected. Cages would have to be prepared for the Condor, Thrush and the Lark, a tank for the Siren and a stall for the Ox. Cape Senical could bring in his Pet and Captains Buck and Pigeon might be included in some way. There is probably no fleet on the lakes which presents such a peculiar lot of names in the line of birds and quadrupeds.

There was no secrecy about the insurance on the Western Reserve. The insurance was distributed among three local agencies in Cleveland and through them placed in seven general agencies. The most convenient way, then, of learning the names of the underwriters were through representatives of the owners, and as soon as Messrs. C. F. Palmer and Philip Minch returned from their sad mission to Lake Superior it was found that insurance was placed as follows: C. W. Elphicke & Co., Chicago, \$6,000; David Vance, Milwaukee, \$14,000; London Assurance, \$11,250; Michigan Fire & Marine, \$4,000. British & Foreign, \$9,000; Western Assurance, \$9,000; Crosby, MacDonald & Co., Chicago, \$80,000; making a total of \$133,250. No insurance was carried by Henry D. Coffinberry or Robert Wallace, builders of the vessel, who owned a sixteenth each.

Notices to Mariners.

The light-house board gives notice that the ranges at Harwood point, southeast end of Sugar island, St. Mary's river, has been lighted. This is the range for which uprights were erected by Col. Ludlow. The lights are among the most essential in the river system and the board is forced to accept them. The

range intersects with the Dark Hole west range at little Mud lake buoy, black No. 13, marking the deflecting point near the upper end of little Mud lake from the latter range, and guides N. $\frac{1}{2}$ W. to an intersection with the Hen and Chicken range at Stribling point buoy, red No. 12.

Commander Ludlow, inspector of the Ninth light-house district, was recently informed by the Lake Carriers' Association of the steamer Lansing having struck north of Squaw island in 1890. He took the matter up immediately and now writes as follows regarding it: "I find some bad places around there; one a 19 $\frac{1}{2}$ foot lump of boulders and gravel. The foul bottom is quite extensive, and to cover the whole of it, as far as possible, I have placed a red nun buoy in 28 $\frac{1}{2}$ feet of water, 700 yards S. E. $\frac{1}{2}$ S. from the shoalest spot I found. There is shoal water to the westward and northward, but I think everything is safe south of a line from Seul Choix light-house to this buoy and from this buoy to Simmons' reef light-vessel. The position of the buoy is as follows: Squaw island light-house, S. $\frac{7}{8}$ W., 4 $\frac{7}{8}$ miles; Squaw island shoal buoy, S. $\frac{1}{8}$ W., 3 $\frac{1}{8}$ miles. I could not get less than 29 feet on the position given by the master of the Lansing as being the place he struck; the 19 $\frac{1}{2}$ -foot spot is $\frac{5}{8}$ of a mile northeast from his position. There may be shoaler places about there but not south of an east and west line through the buoy."

Resolutions Adopted by the M. E. B. A.

At a special meeting of branch No. 2, M. E. B. A., Cleveland, on Thursday last, called for the purpose of taking action regarding the Western Reserve disaster, the following resolutions were adopted:

WHEREAS, It has pleased the Divine Ruler of the Universe to call from our midst our beloved brothers William Seamen and Charles Wills, who have always been earnest supporters of our order and respected citizens of this community,

RESOLVED, That we deeply deplore their premature death and condole most sincerely with their relatives and friends in their sad bereavement, and be it further

RESOLVED, That as a fitting tribute to their memory the charter of this lodge be draped in mourning for the space of six months; that these resolutions be spread on the records of this lodge, and a copy under seal of this lodge be engrossed and presented to the families of our deceased brothers.

M. B. STURTEVANT, }
J. L. CHASE, } Committee.
W. H. LLOYD, }

In view of the fact that William Seamen was the sole means of support of a large family and there is some question as to the validity of his life insurance two subscription lists have been prepared, one by the association and another by D. W. Johnson, the amount received in both instances to be presented to the family as a testimonial. The M. E. B. A. list is in charge of M. B. Sturtevant, engineer, Society for Savings building, and Mr. Johnson can be found at Room 1, 208 Superior street, Cleveland. Any subscriptions left at the office of the REVIEW will be turned over to either party.

Barges with a History.

The sail of the steam barges R. G. Hackett and Forest City and barges H. H. Brown and Wm. McGregor by the Northwest Transportation Company of Detroit to the Vulcan Transportation Company of the same place for \$126,000, has caused considerable comment. The Vulcan company is a new concern, in which Edward T. Peck, James Findlar, J. B. Baugh and S. A. Baugh are the incorporators. It is understood, however, that the boats will remain in the ore trade with the same connections in Cleveland. These boats have a history. The steamers were built by Capt. Peck in Cleveland in 1870 and the barges were built in Port Huron two years later by Muir. With these four boats the towbarge system was adopted on the lakes, and the boats have made several fortunes for their owners, misfortune having come to two of the original owners only through other sources. Capt. Peck some time ago said he would as soon sell his bed as these boats, and if reminded of it he would probably reply in his gruff way that he would sell the bed if he got his price for it.

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E. T. CARRINGTON,
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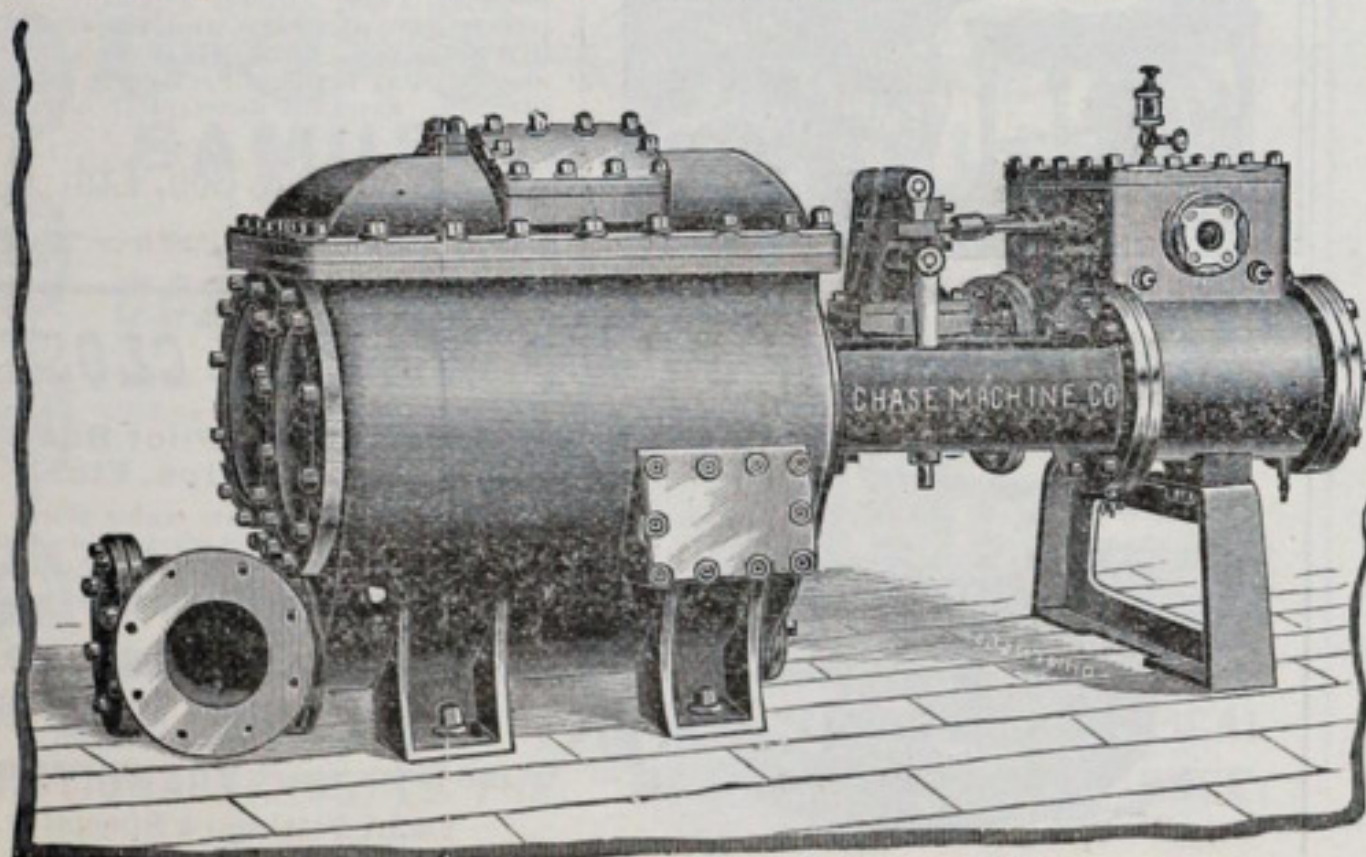
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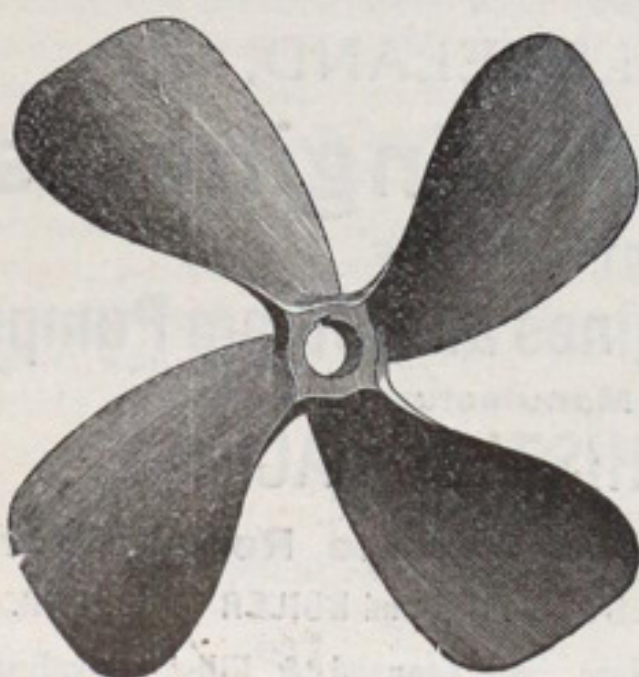
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 West Congress street, Detroit, Mich., September 8, 1892. Sealed proposals for furnishing by the hour 1 dredge, 1 tug and 2 dump scows, for use at Detroit river, Mich., will be received at this office until 2 p. m., October 8, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. O. M. POE, Colonel, Corps of Engineers, etc. Oct. 6.

UNITED STATES ENGINEER OFFICE,
 Grand Rapids, Mich., September 10, 1892. Sealed proposals for dredging in Frankfort Harbor, Mich., will be received at this office until noon of Tuesday, September 20, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. WILLIAM LUDLOW, Major of Engineers, Bvt. Lieut. Col., U. S. A. Sept. 15.

TREASURY DEPARTMENT, WASHINGTON, D.C., Sept. 3, 1892. Sealed proposals for constructing a steam propeller, to be named William Windom, for the United States revenue cutter service, will be received at this department until 2 o'clock p. m., Wednesday, Oct. 5, 1892. Bids must be in accordance with the instructions on page 5 of the specifications, and be addressed to the secretary of the treasury, and indorsed on the envelope "Proposals for construction of steam propeller for United States Revenue Cutter Service." Specifications for the work will be furnished to parties desiring to submit bids upon application to this department. The right is reserved to reject any or all bids, and to waive defects, if deemed for the interest of the government to do so. CHARLES FOSTER, Secretary. Sept. 21.

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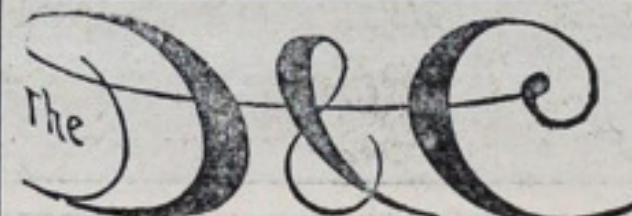
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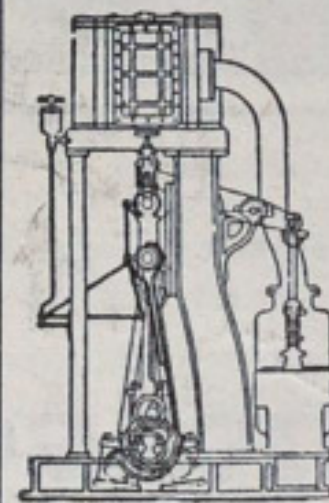
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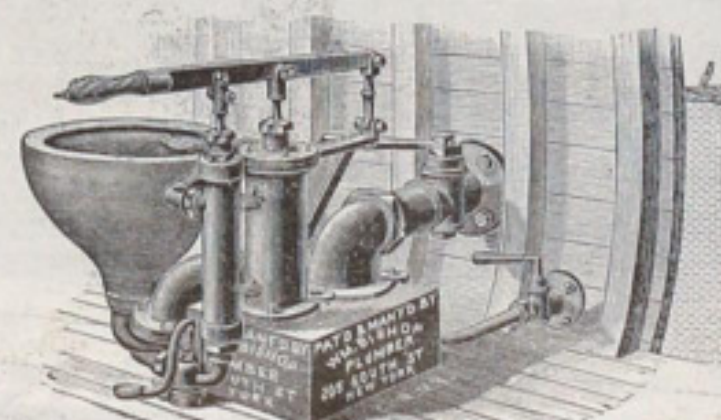
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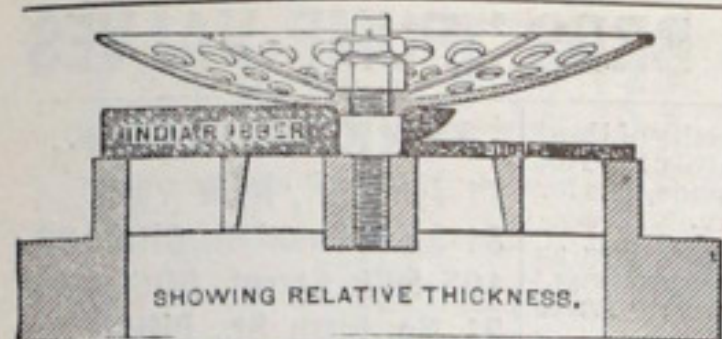
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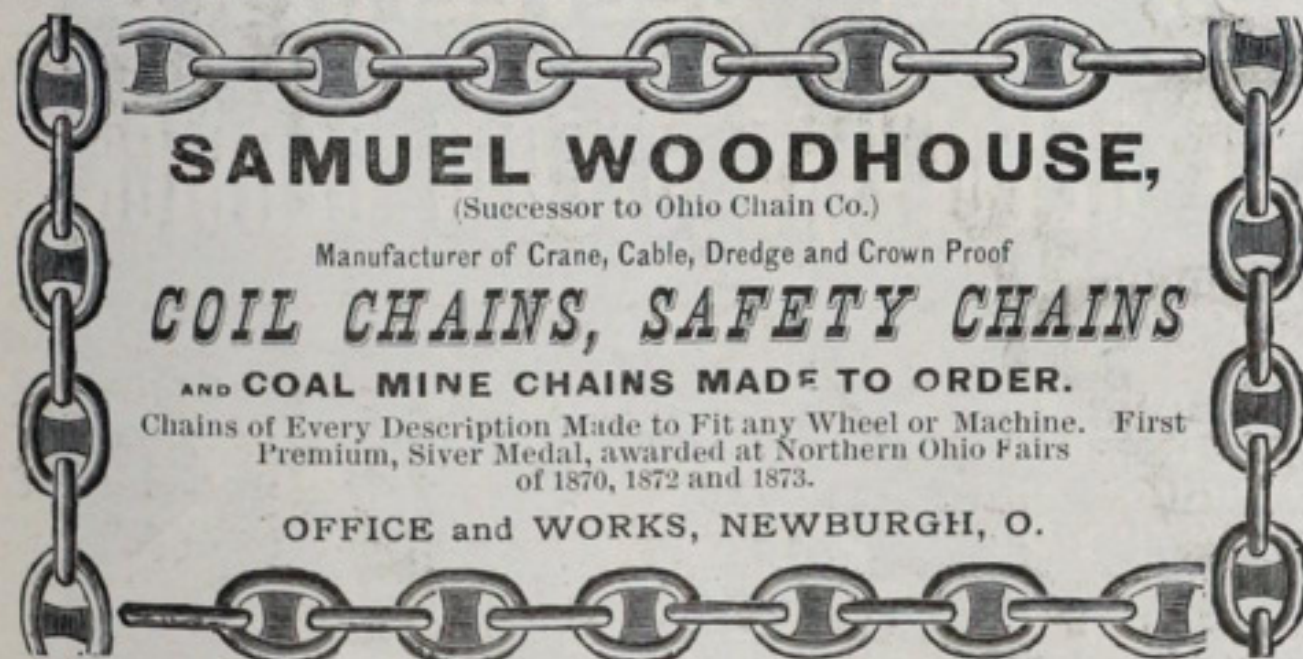


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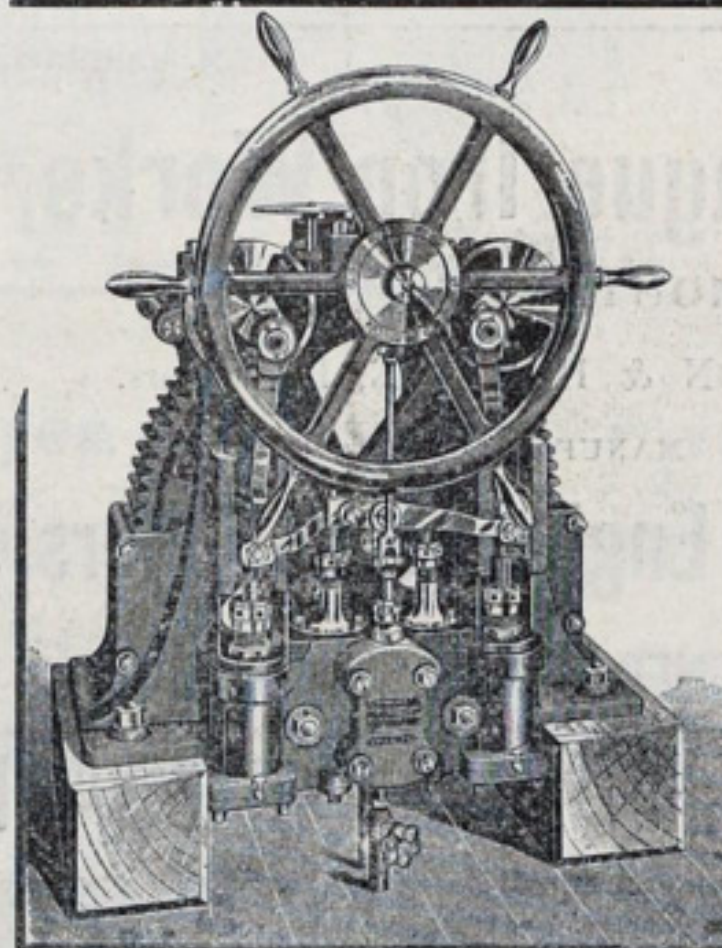
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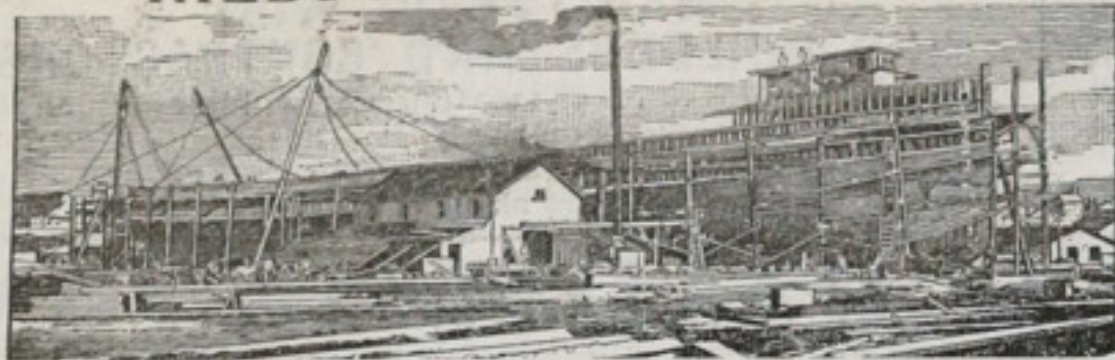
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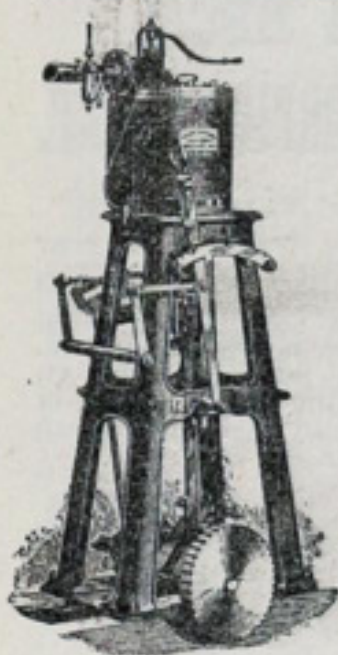
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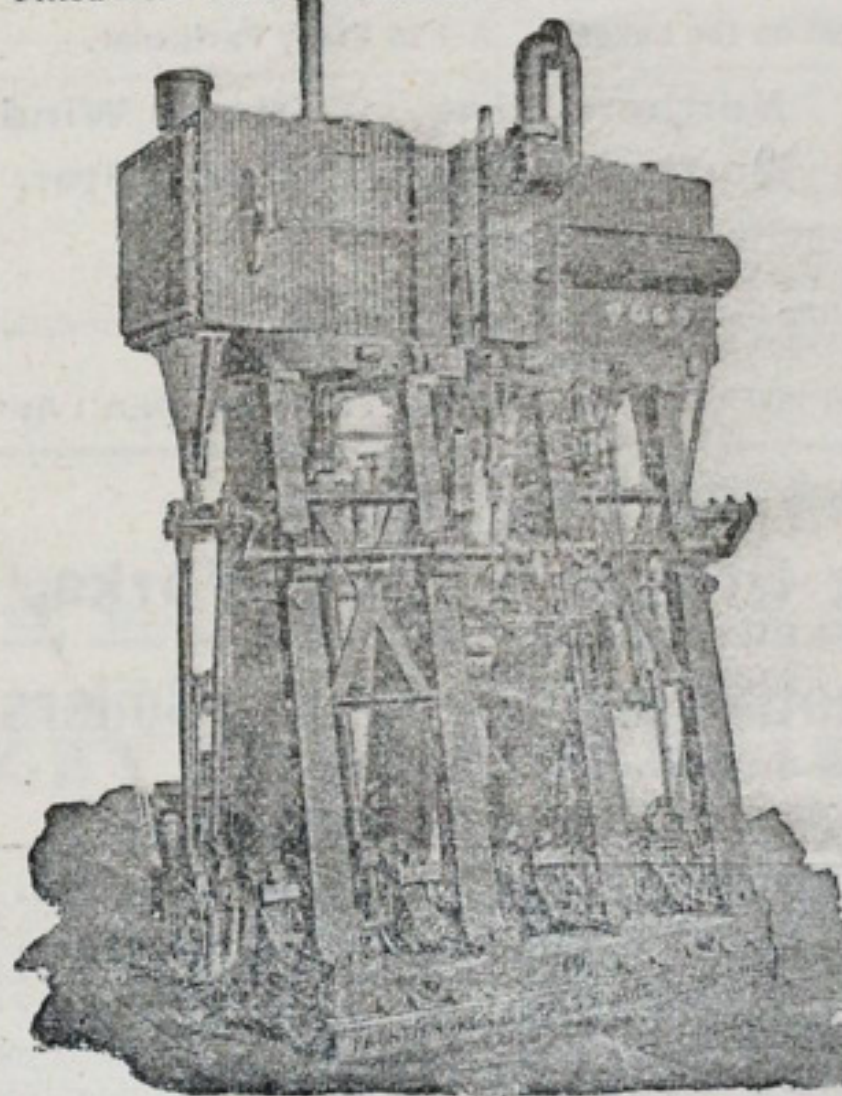
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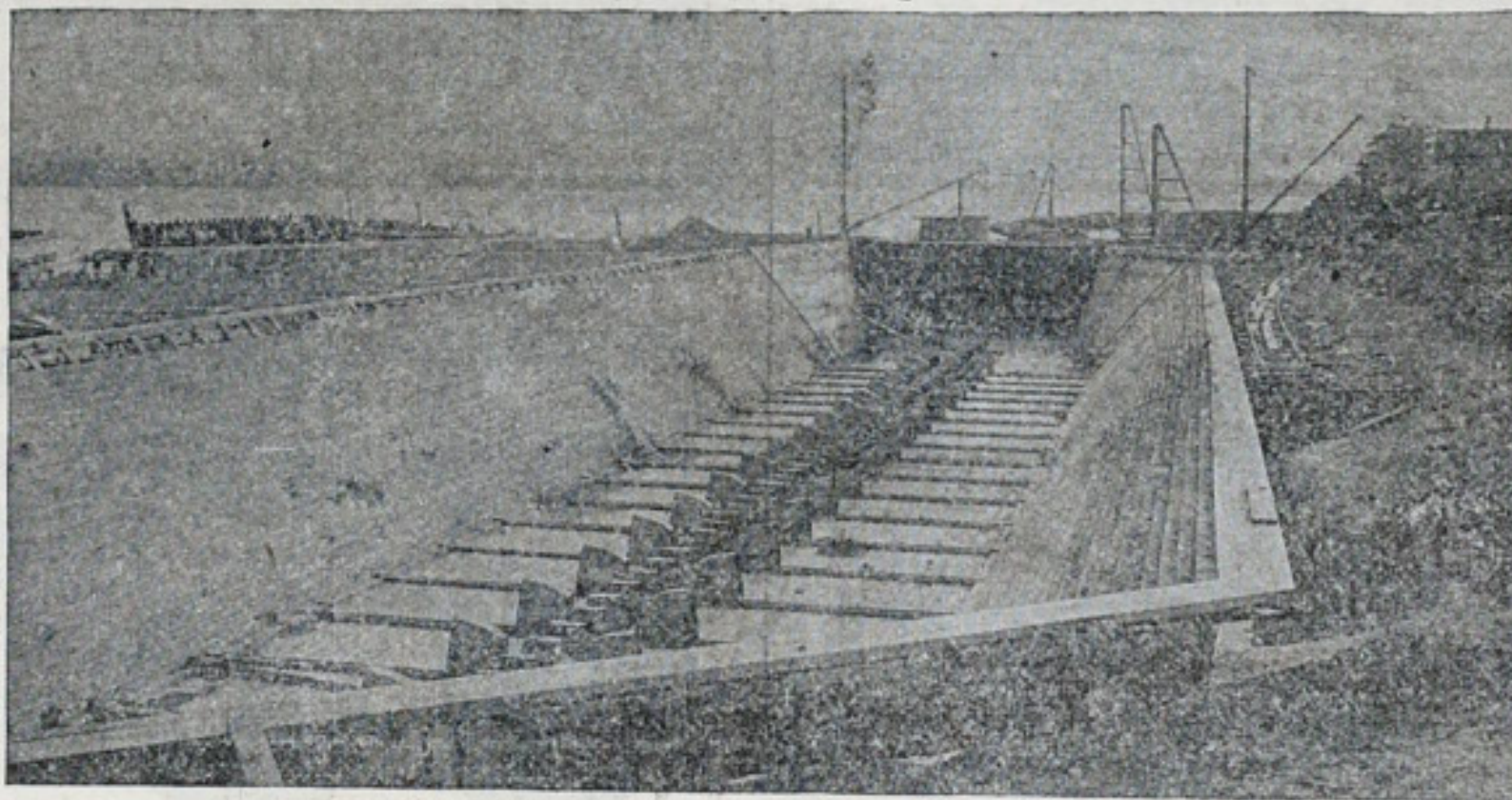
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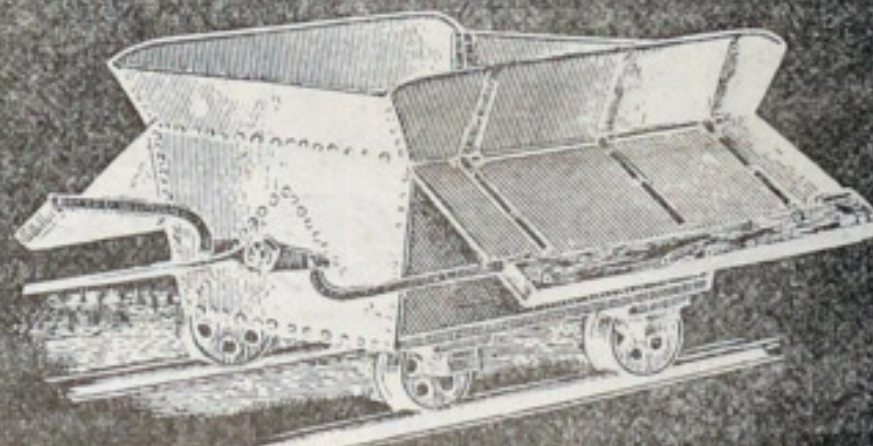
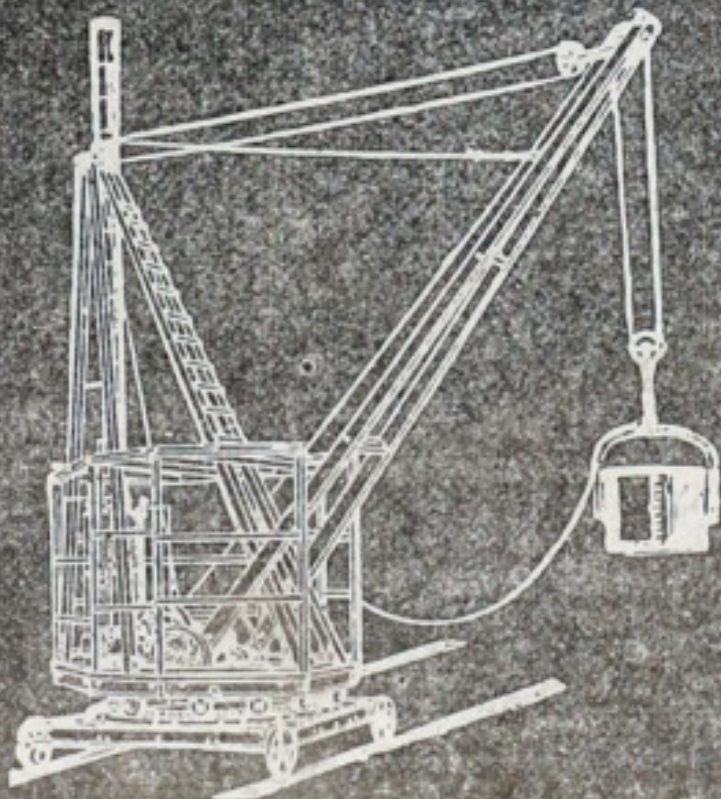
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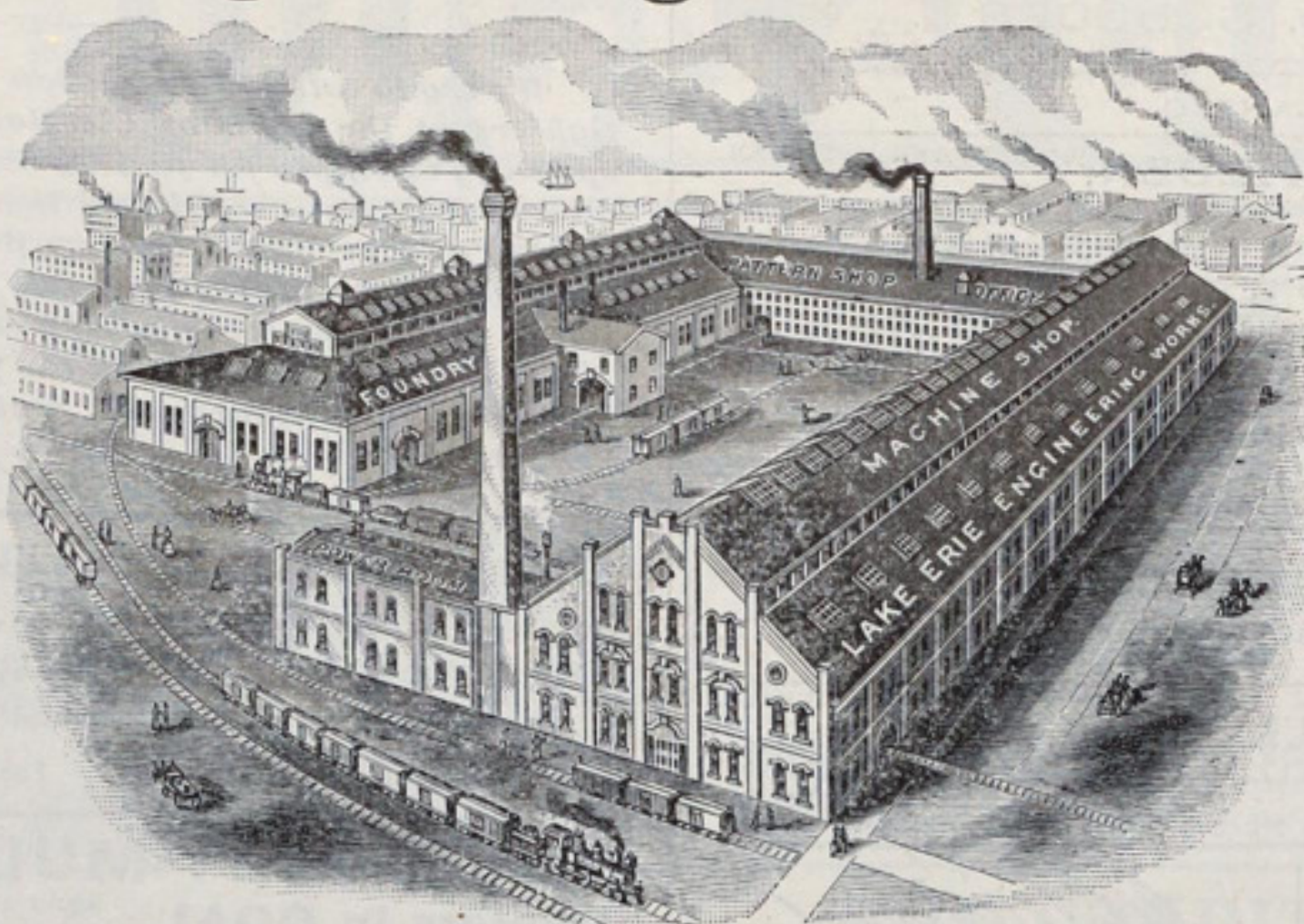
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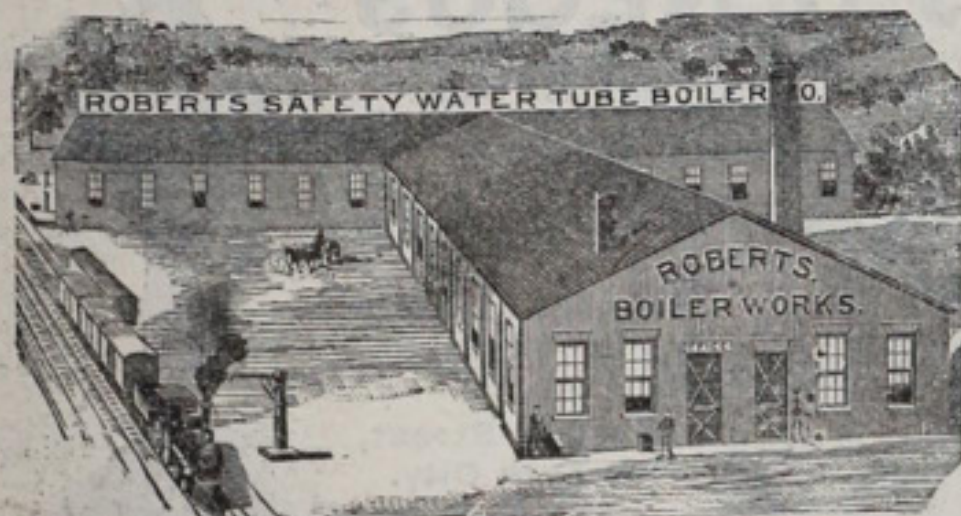
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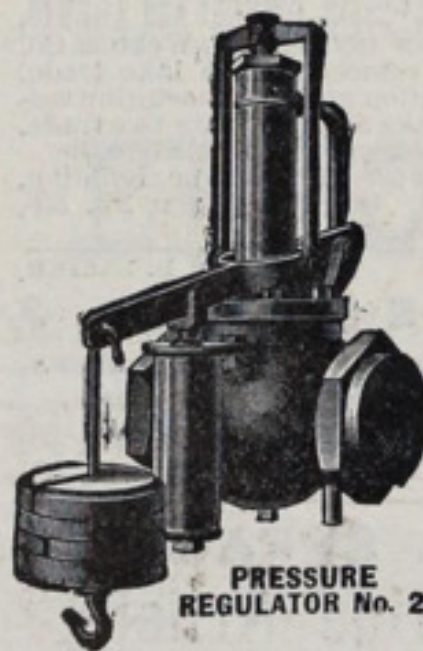
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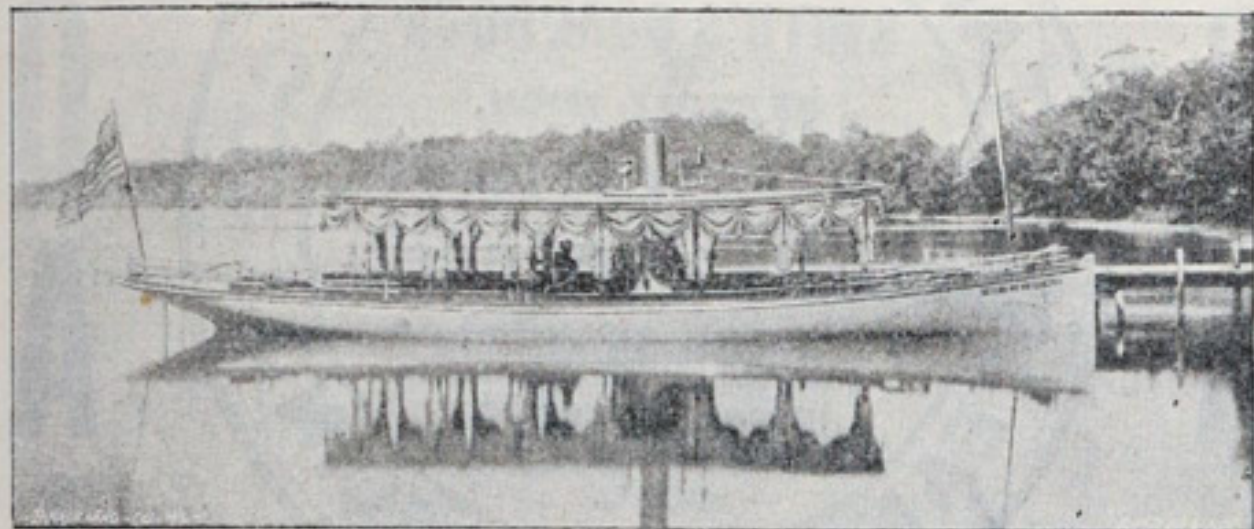
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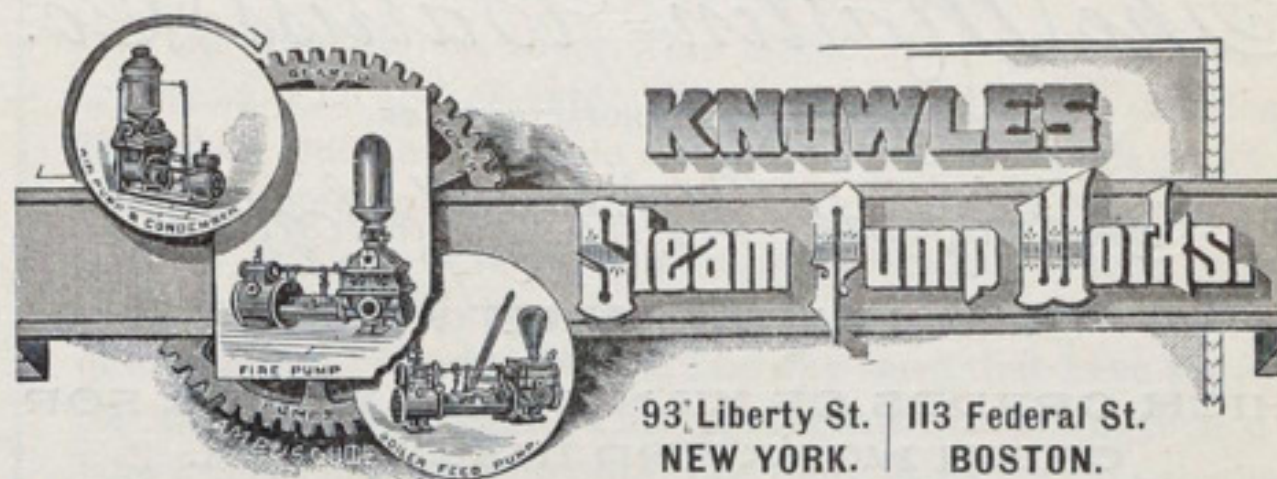
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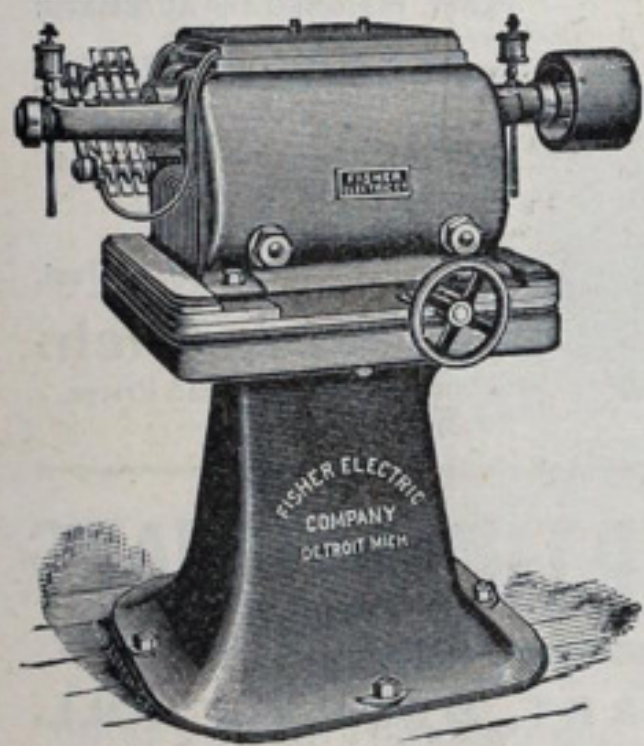
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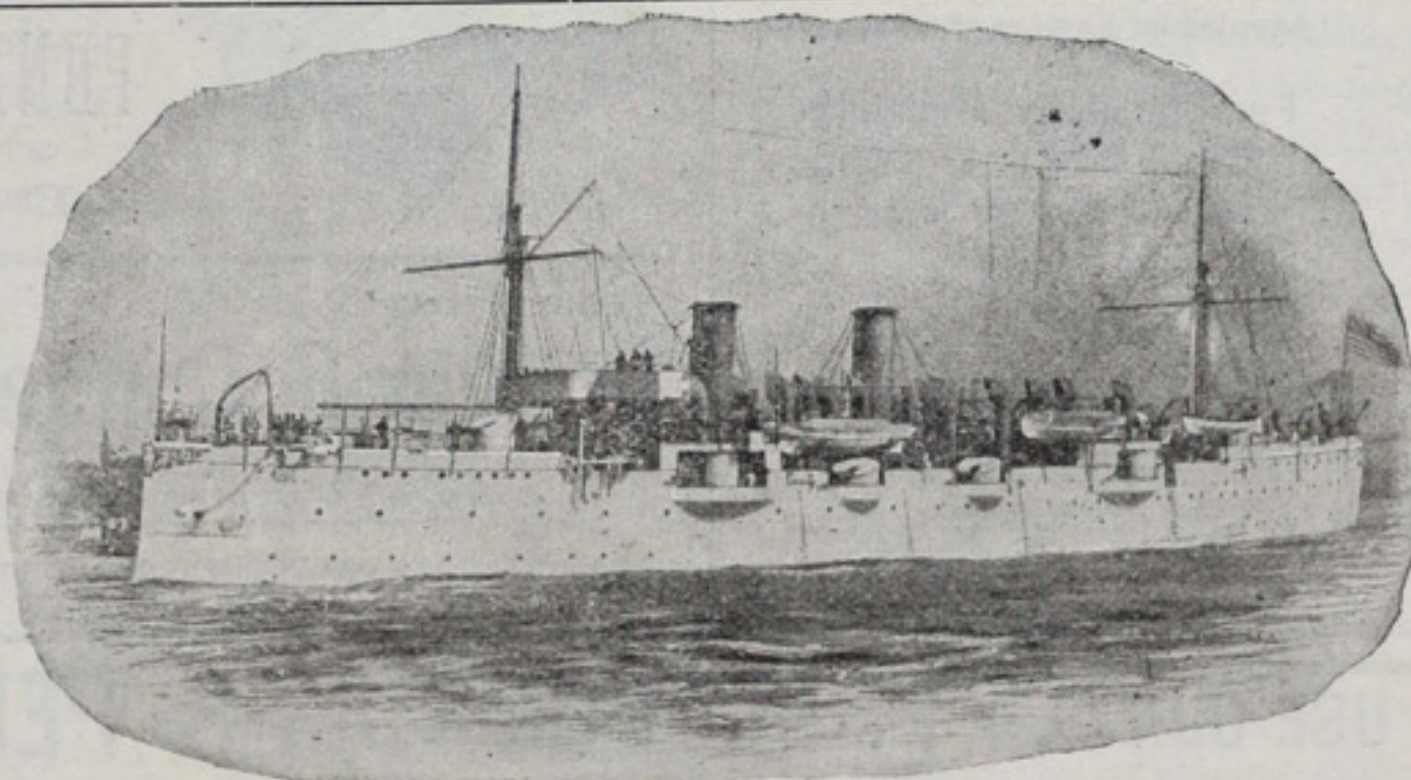
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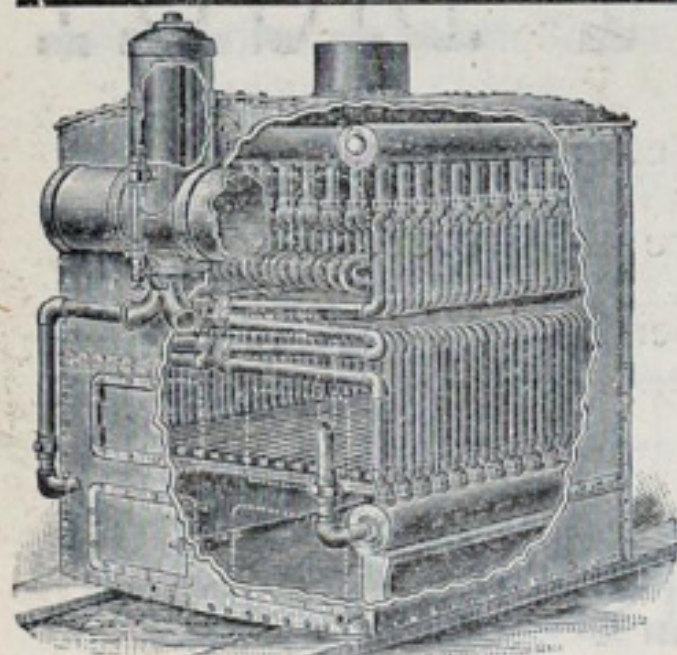
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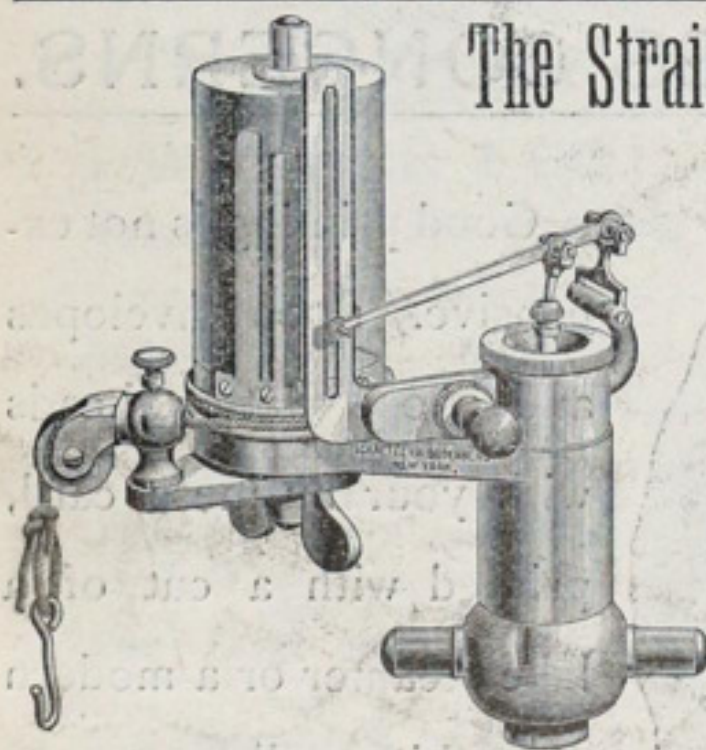
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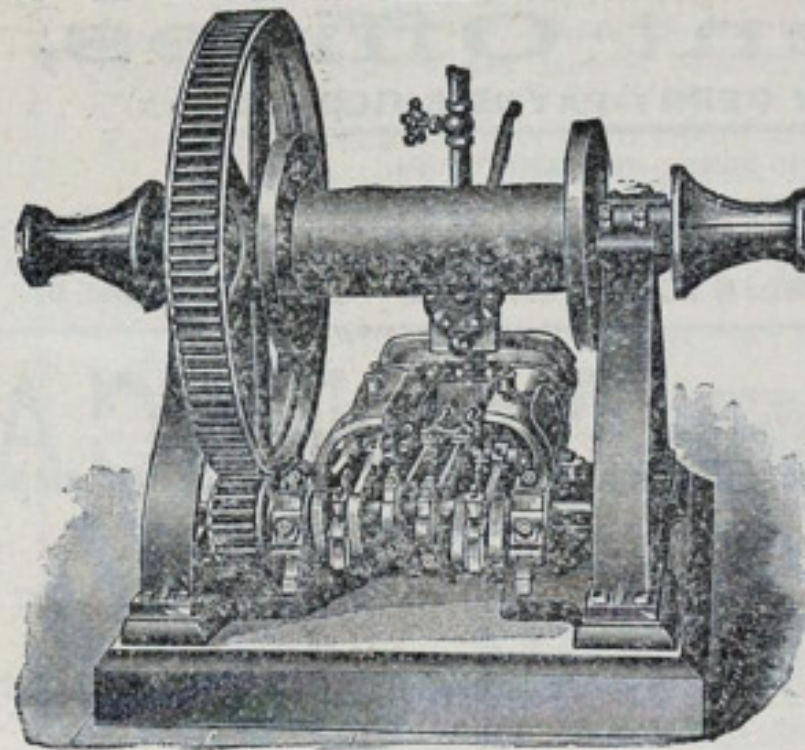
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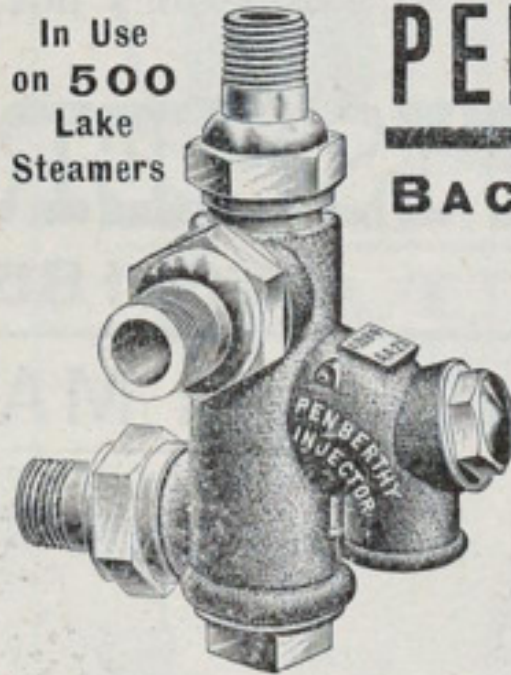
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